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OCCASIONAL PAPER

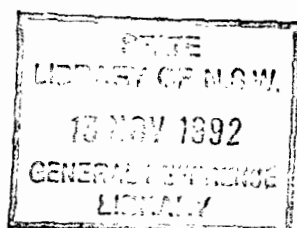# SEX AND ETHNICITY IN THE AUSTRALIAN LABOUR MARKET:

THE IMMIGRANT EXPERIENCE

Sex and Ethnicity

in the Australian

Labour Market:

The Immigrant Experience

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Preface

This occasional paper was written by Professor Frank Jones, Research School of Social Sciences, Australian National University. It is based on a detailed analysis of 1986 Population Census data undertaken when Professor Jones was a Research Fellow at the ABS.

The ABS objectives in offering Research Fellowships are to encourage the greater use of ABS data in academic and other research, to encourage the development of new analytical techniques for the analysis of data and to increase the general level of research into problems relevant to the ABS.

The conclusions drawn and observations made by Professor Jones are his own, and do not necessarily represent the views of the Australian Bureau of Statistics.

Any detailed enquiries about his analysis are best directed to Professor Jones, at the Australian National University. Any requests for data from the 1986 Census, the 1991 Census, or other ABS statistics should be directed to Ms Suzanne Droop, Information Services Branch (06 2526295)

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Acknowledgements

Introduction

This analysis is motivated by a concern with how fairly the Australian labour market treats different groups of workers. It draws upon detailed results from the 1986 Census for some thirty different ancestry groups with at least 10,000 persons in the Australian labour force. Table 1 lists the main groups that can be distinguished and highlights groups retained for analysis. However, this report is confined to just four of those groups: Anglo-Celts, the Dutch, Italians, and the Chinese. It focuses on two classes of workers that in the eyes of many observers experience unfair treatment: women and immigrants. They are, of course, not mutually exclusive groups. We can outline the general approach by considering first the case for unfair treatment of women.

Table 1. Ancestry Groups and Immigrant Generations in the Australian Labour Force, 1986 Census (Row Percentages)

Ancestry Group	Immigrant Generation			Total No.
	First	Second —per cent—	Third	
ENGLISH SPEAKING ANCESTRIES				
Aborigines and Torres Strait Islanders	0.4	3.7	95.9	57,049
Anglo-Celts	15.5	11.8	72.7	4,948,679
Maori	86.6	4.6	8.8	13,084
New Zealander	93.5	3.3	3.2	27,031
North American	62.9	16.2	20.9	21,475
South African	92.9	3.1	4.1	6,551
WESTERN EUROPE				
Austrian	75.1	19.4	5.5	13,714
Dutch	57.0	37.0	6.0	108,663
French	36.3	11.2	52.5	48,382
German	26.5	15.5	58.1	241,900
Scandinavian	26.6	14.4	58.9	44,377
Swiss	70.0	12.0	18.1	5,891
EASTERN AND NORTH-EASTERN EUROPE				
Baltic	61.6	35.1	3.2	12,972
Croatian	84.6	13.6	1.8	19,883
Czech	85.0	12.7	2.3	9,167
Finnish	80.9	13.6	5.5	6,720
Hungarian	76.7	21.4	1.9	22,640
Polish	56.2	33.8	10.0	65,768
Russian	53.2	32.9	13.9	19,320
Serbian	86.6	11.5	1.9	2,898
Slovene	74.8	20.5	4.7	2,962
Ukrainian	57.5	39.3	3.2	10,098
Yugoslavian	72.1	23.0	4.9	70,826
MEDITERRANEAN ANCESTRIES				
Albanian	63.5	29.6	6.9	2,031
Cypriot	67.1	30.3	2.6	2,283
Egyptian	94.1	3.7	2.2	6,346
Greek	60.5	33.5	6.0	160,991
Italian	49.9	41.3	8.8	302,781
Lebanese	72.5	19.5	8.0	32,848
Macedonian	84.4	14.2	1.4	17,597
Maltese	57.3	37.4	5.3	58,157
Portuguese	90.8	5.0	4.3	11,635
Spanish	66.1	10.5	23.4	33,793
Turkish	94.1	4.2	1.7	13,770
WESTERN ASIA				
Arab	89.7	5.0	5.4	8,544
Armenian	87.5	6.0	6.5	5,381
Assyrian	94.3	2.4	3.3	2,742
Iranian	97.2	1.6	1.2	2,492
Jewish	52.3	28.7	19.0	16,781

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Table 1. Ancestry Groups and Immigrant Generations in the Australian Labour Force, 1986 Census (Row Percentages)—*continued*

Ancestry Group	Immigrant Generation			Total No.
	First	Second *—per cent—*	Third	
EASTERN ASIA				
Chinese	85.0	6.6	8.5	91,103
Filipino	97.3	1.2	1.5	13,398
Indian	86.4	6.2	7.4	35,013
Indonesian	94.5	3.1	2.3	2,635
Japanese	95.4	2.4	2.2	4,081
Khmer	98.1	0.7	1.2	3,607
Korean	98.7	0.6	0.7	4,045
Lao	98.1	1.1	0.8	2,858
Malay	88.6	2.9	8.4	2,140
Sinhalese	94.9	3.7	1.4	8,661
Vietnamese	99.0	0.6	0.4	29,742
OTHER				
Latin American	97.3	1.0	1.7	7,172
Mauritian	96.0	2.3	1.6	3,212
Pacific Islander	89.4	3.3	7.3	5,404
Other	15.7	11.8	72.5	411,907
Total	25.6	14.5	59.9	7,083,100

Note: Highlighted groups were retained for detailed analysis.

1. Sex Discrimination

In his reply to a recent question in the national parliament, the Minister for Industrial Relations, Senator Cook, said that Australian women continued to suffer significant discrimination in earnings. Despite equal pay decisions now almost two decades old, women still earned less than men. They remained clustered in low-paid jobs, and in jobs offering fewer chances for promotion (*Canberra Times, 15 September 1990*). The Senator's evidence for unfair treatment, or discrimination, was that women earned only 83 per cent of the average weekly pay of men.

Such brute facts of inequality often, but not always, provide clear evidence of discrimination. However, for Australian women the historical nexus between lower earnings and institutionalised discrimination is unambiguous. For decades, the discriminatory apparatus was on public display in the official rulings of arbitration commissions. These well-known historical facts have been rehearsed in many places (e.g. Eccles, 1983).

For most of the present century, Australian wage-setting principles assumed that male wages should have a component for family support (the so-called basic wage). Female wages, however, were based on the fiction, sanctioned by custom, that the recipient was a single person with no actual or potential family responsibilities. Until the Second World War, the effect of such thinking was to limit the basic wage for women to 54 per cent of the male rate in both federal and state awards.

During the Second World War, the shortage of male civilian labour drew women into jobs formerly dominated by men. The Women's Employment Board, established to control this temporary situation, fixed higher rates of pay for women, ranging from 75 to 100 per cent of the male wage. After the war, the Arbitration Court ratified this lower limit of 75 per cent as a general relativity. It remained the norm until the end of the 1960s (Eccles, 1983: 486), when practice changed again, reflecting an official endorsement of the principle of equal pay. That endorsement lagged behind public opinion by least twenty years (Jones, 1989a: 100).

The first equal pay decision by federal authorities came in 1969. It recognised that how much a person got for doing a job should not differ merely because one worker was a man and another a woman. For the first time, the federal tribunal endorsed the principle of 'equal pay for equal work'. But the Australian labour market was then, as it is now, highly segregated. Men mostly did men's work, and women mostly did women's work. So it was hard to equate the two. Then as now, six out of every ten men worked in predominantly 'male' occupations, and seven out of every ten women worked in predominantly 'female' occupations. This high degree of occupational segregation has persisted largely unchanged since the turn of the century. It shows some signs of weakening but none of disappearing (Jones and Davis, 1986: 120-2). Indeed, at the sluggish rate of change prevailing so far this century, it would take another three centuries to eliminate occupational segregation.

Occupational segregation was an obstacle to effective pay equality flowing from the 1969 decision, because it did not affect most women working in segregated jobs. In 1972, a second equal pay decision endorsed the broader principle of 'equal pay for work of equal value'. This decision increased women's relative earnings sharply, although it had no direct effect on occupational segregation as such. Indeed, precisely because it increased the pay of women

doing 'women's work', the adoption of this wider principle of wage equality may if anything have tended to reinforce occupational segregation.

This brief excursion into the history of discrimination in women's earnings provides a backdrop against which to view labour market discrimination more generally. For women, the mechanism was explicit; the results were plain to see; and the unequal outcomes were readily measurable. In 1950, when the explicit rate of wage discrimination was 75 per cent, the award rates for women averaged about 70 per cent those of men. By 1971, mid-way between the two equal pay decisions, the gap had narrowed to 75 per cent. By the early 1980s, as a result of the second equal pay decision, the gap had narrowed further to just over 90 per cent (Jones, 1984: 106). The same trend towards a lower differential characterises average earnings as well as award rates. In other words, even after the abolition of explicit wage discrimination, women still earned less than men. They earned less because of occupational segregation and related factors, like intermittent labour force participation (less seniority) and fewer promotion opportunities (lower organisational rank).

In evaluating prevailing sex differences in earnings and other labour market outcomes, we are no longer likely to find convincing evidence of direct *wage* discrimination. The differences that persist stem rather from other sources: employer practices in hiring, training, and promotion; and indirect discrimination. The latter includes the social forces that induce women and men to make different choices about schooling, post-school training, occupational careers, and labour market participation. Wider social expectations about sex roles constrain all such choices. Whether we use the language of choice (differences) or constraint (discrimination) to describe such inequalities involves a value-judgment that reflects how we balance the historical ledger of costs and benefits among

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individuals and groups. The account that follows is from the vantage (or rather disadvantage) of those who laboured for lower wages. So it uses the language of constraint.

2. Ethnic Discrimination

Women are a minority group only when it comes to the labour market. When we think of minority groups, we usually think of ethnic groups. Their members have also suffered organised discrimination at work. The clearest cases are Aboriginal Australians and Asian immigrants. Indeed, discrimination against Aborigines may have extended to early attempts at genocide (Butlin, 1983: 22, 175). Today, many Aborigines subsist on the social, economic and geographical fringes of mainstream Australia. Although their economic position has improved in recent years, if they had been born overseas many would have been refused admission under Australian immigration regulations (Broom and Jones, 1973: 3). Their educational levels are low; their occupational experience is often meagre; and their prospects of integration into multicultural Australia are inferior to many settlers from Europe and parts of Asia. A recent stocktake and evaluation of Aboriginal employment can be found in Altman (1991).

National discrimination against Asians was formalised in 1901 as one of the first acts of the fledgling Australian parliament. The Immigration Restriction Act, more popularly known as the White Australia Policy, consolidated existing practice in the former Australian colonies by giving legal expression to the widespread view that Europeans were intrinsically superior to other 'races' (Yarwood in Jupp, 1988: 81). The legislation also reflected a strong economic sub-current of fear that cheap Asian labour would threaten the hard-won gains of the labour movement.

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Widespread fear of Asian immigration began with the influx of many thousands of Chinese during the gold rushes of the 1850s. Racial riots on the Victorian gold fields led promptly to legislation restricting their immigration, but the Chinese continued to arrive overland via other Australian colonies. Later legislation in New South Wales restricted not only Chinese immigration but also their access to the gold fields. Only Queensland, which needed labour for its sugar industry, tolerated 'coloured' or non-European immigration. Not even Queensland, however, tolerated the Chinese.

From federation in 1901 until the 1960s, White Australia remained national policy and a key element of immigration control. It enjoyed wide public support. For example, since the turn of the century the Australian nationalist magazine, *The Bulletin*, had proudly proclaimed on its masthead 'Australia for the White Man'. But by 1960 Australia's economic interests were moving away from Europe towards Asia and the Pacific. One of the first acts of its incoming editor, Donald Horne, was quietly to drop this racist slogan (Horne, 1964: 110; Jones, 1989a: 97-8).

These years were a time of change. In 1958, the government replaced the dictation test, an instrument of White Australia, with less offensive administrative controls over Asian migration. In the following year, 1959, it relaxed admission rules for Asians. A few years later, in 1965, the Australian Labor Party (ALP) removed the White Australia Policy from its political platform (Yarwood in Jupp, 1988: 82-3). When it came to power in 1972, the ALP made sweeping changes to Australia's immigration policy, bringing it broadly into line with Canadian practice at the time. Future criteria for admission were to be '...occupational skills, knowledge of English, initiative, appearance, personal hygiene, speech and behaviour, and have no reference to race or religion' (Yarwood in Jupp, 1988: 83).

Discrimination against other ethnic groups also occurred, but mainly as sporadic expressions of economic and social prejudice rather than as organised action against minority group members. Between the two world wars, there were violent incidents involving southern Europeans. Serious as these incidents were, their extent is easy to exaggerate. For example, Castles *et al.* (1988: 20) have several people dying in the 1934 Kalgoorlie riots that followed the accidental death of an Anglo-Celtic footballer after a fist-fight with an Italian bartender. While the violence was extensive, in fact only two people died (Price, 1963: 207-8). This riot was not, however, an isolated incident. Acts of violence also occurred on the Queensland cane-fields and, after the outbreak of hostilities, in the major cities as well (Borrie, 1954: 108-27; Price, 1963: 213-6).

In the labour market as such, migrants encountered widespread prejudice but less by way of systematic discrimination. In some places at some times, restrictions were placed on the property rights of non-citizens (Borrie, 1954: 26-8; Markus in Australia, Committee to Advise on Australia's Immigration Policies, Consultants' Reports, 1988: Section 2.1). Moreover, access to permanent employment in the federal and state civil services had long been restricted to British subjects. However, the greatest difficulty immigrant workers faced was not direct discrimination in wages and conditions of employment, because there were no ready mechanisms employers could use to discriminate against foreigners in the highly structured Australian industrial scene. Immigrants' problems were rather those of adjusting to an alien economy, of coping, for example, with the state of the labour market when they arrived; finding out whether or not their overseas qualifications were acceptable; learning to speak English fluently; and in many cases shifting from farm jobs in rural Europe to factory work in urban Australia.

Moreover, since the passage of the Racial Discrimination Act in 1975, it has been illegal for one person '...to discriminate against

another, on grounds of race, colour, descent or national or ethnic origin' (Australia, Commissioner for Community Relations, 1977: 5-6). In the first year of the Act's operation, the Commissioner for Community Relations investigated some 359 complaints, only a minority of which (about one in twelve) alleged discrimination in employment.

For these various reasons, we are unlikely to find today strong evidence of sex, racial or ethnic discrimination in the Australian labour market. But we might expect to find residual inequalities between groups. Such inequalities reflect the historical pattern that confined Aboriginal Australians to the periphery, limited the educational and occupational aspirations of women, encouraged employers to ignore the promotion claims of women workers, and attracted groups of immigrants with good, bad, and indifferent chances of economic success. Pockets of discrimination may persist, expressed in more subtle ways. It has, for example, been recently claimed (and denied) that the system of assessing overseas qualifications is discriminatory (Australia, Department of Immigration, Local Government and Ethnic Affairs, 1989: 31). Other commentators see industrial and occupational segmentation among immigrant workers as a form of economic discrimination (for example, Lever-Tracy and Quinlan, 1988: 134-40). We examine this issue below, albeit indirectly.

3. Theory and Methods

We have reached a point where a more formal definition of labour market discrimination, and how to measure it, is needed. The concept of discrimination is normally associated with inequality in group outcomes. It can, however, work in the opposite direction, for example, in affirmative action programs that aim at fostering an equality of outcomes in situations where inequality might otherwise arise. A firm that set targets or quotas in hiring and promoting workers might prefer minority group members over majority group members with otherwise equal or even superior endowments of human capital.

More often, however, group discrimination has a negative connotation. It implies unjustified inequalities. In the context of the labour market, it implies that personal characteristics strictly irrelevant to economic performance, like sex or ethnic origin, provide a basis for the prejudicial treatment of different groups of workers. Of course, it has been long known that prejudiced attitudes do not always translate into overt acts of discrimination. In his classic study carried out over half a century ago, LaPiere (1934) reported that the overwhelming majority (nine out of ten) of the more than one hundred restaurant and hotel operators he canvassed said that they would not accept Chinese clients. Yet when actually approached to serve or to accommodate a Chinese couple, only one acted on that prejudice. So prejudice and discrimination are not the same.

On the other hand, significant discrimination can exist in a society without being universal. For example, in his portraits of distinguished American economists, Sobel (1980: 100) notes that in the 1940s many American colleges and universities practised '...a barely disguised form of anti-Semitism when it came to making appointments'. That prejudice cost Paul Samuelson a position at Harvard University. Harvard in turn lost the outstanding economist of his generation (Sobel, 1980: 101). Around the same time, Milton Friedman rejected an offer from the University of Wisconsin, amid controversy that '...there was no room on campus for another Jew...' (Sobel, 1980: 153). Yet anti-Semitism did not prevent them from joining, respectively, the faculties of the Massachusetts Institute of Technology and Columbia. It is important to realise that statistical studies of discrimination can only detect this kind of exclusionary process if it is widespread. In the above cases, a prejudiced employer and potential colleagues discriminated. Others did not. No statistical study can detect such instances of discrimination unless many employers discriminate.

As a rule, we infer the presence of discrimination from inequalities in the labour market position of different groups: Jews versus Gentiles, women versus men, migrants versus the native-born, blacks versus whites, and persons from majority ancestries versus persons from minority origins. But observed inequality does not necessarily imply unequal treatment. If women, or migrants, or minority group members have less labour force experience, less schooling, or fewer post-school qualifications than men, or the native-born, or majority group members, then treating them *equally* in terms of these relevant labour market characteristics will produce *unequal* group outcomes. Some groups may suffer a lower risk of unemployment, or get into higher status jobs, or earn more simply because they have superior endowments of human capital. Before arriving at a verdict of 'discrimination', we need to allow for any such group differences.

The most common approach to the analysis of discrimination in labour markets is to divide observed inequalities (for example, in jobs status or hourly earnings) into two components. The first represents that part of observed inequality resulting from differences in human capital (e.g. schooling, experience, qualifications, language competence and so on). The second, the residual, is then interpreted as differential treatment, and as an estimate of 'discrimination'. The data that social scientists typically analyse never contain direct information on discrimination. Indeed, since discrimination in Australia is not only socially unacceptable but strictly illegal behaviour, it is not immediately obvious how one would go about collecting data on discrimination, beyond perusing the cases that find their way before tribunals and courts, or asking people about their subjective experiences (for an example of the latter approach, see Evans *et al.* in Kelley and Bean, 1988). But victims of discrimination are not necessarily aware of it, unless it is both widespread and overt.

Quantifying the effects of discrimination involves partitioning observed inequality into these two components. The ratio of the second component to the total difference between groups provides an upper bound of the extent of discrimination. It provides an upper bound because it is simply a residual difference. Factors other than discrimination contribute to it. Among the more important of these other factors are measurement error (in variables like labour force experience, for example); selectivity bias (some workers may not seek certain lines of employment if they anticipate discrimination); and omitted variables (such as length of tenure in present job, on-the-job training, supervisory responsibilities, and size of firm). Most empirical studies of inequality include only a subset of the many factors that influence how much workers are worth to their employers, what kinds of jobs they can aspire to, and how much they get paid. So the logic of the decomposition approach to inequality and discrimination, while straightforward in

theory, is not so straightforward in practice. Nonetheless, the statistical adjustment and decomposition approach goes a long way towards answering the question of whether or not groups with comparable characteristics receive equal treatment in the labour market. Discussions of the technicalities are readily available elsewhere (Polachek, 1982: 246; Jones, 1983a; Jones and Kelley, 1984).

Merely controlling for differences in human capital, however, fails to address the more complex issue of the indirect effects of past discrimination. Groups that once suffered discrimination may have adjusted their behaviour because of expected discrimination. Why should Australian Aborigines, or women, stay at school longer and undertake further education if they expect unequal treatment when they enter the labour market? If the members of such groups do adjust their pre-market behaviour, then the bundles of human capital endowments that they bring to the labour market reflect past discrimination.

Workers can be said to suffer *direct* discrimination when the labour market fails to treat their endowments the same as those of others. They suffer *indirect* discrimination when social norms constrict their educational and occupational choices. This latter perspective implies that discrimination can occur in the absence of a specific discriminator. Discrimination becomes a property of the social system. As such, it is located in the prevailing climate of opinion (the hegemonic culture of some sociologists), which can, presumably, be changed. In so far as discrimination exists without an active discriminator, it stems from a false consciousness from which workers can escape. They can make other choices rather than those prescribed by social convention.

Another aspect of possible 'discrimination' involves small businesses. Ethnic groups differ markedly in the propensity with

which their members set up small enterprises. No-one of course forces anyone to enter self-employment, but for the members of some ethnic groups setting up a small business may be the only viable route to social mobility. For example, they may experience difficulty in having their qualifications recognised, or they may have been laid off from factory work as a result of a recession or industry restructuring. Self-employment may even be a response to discrimination at work (Tait *et al.*, 1989: 192; Pascoe, 1990: 1-4). Motivations obviously vary.

Evans (1989) identifies other factors that affect the extent to which immigrants set up business enterprises. The size of the immigrant group and its linguistic isolation from the host society both influence the propensity to set up businesses, independently of an individual's own stock of human capital. Migrants, like other Australians, are often willing to exploit themselves and their families by working very long hours for low nominal rates of pay in return for economic independence, even if that independence is short-lived (eighty per cent of new companies fail in the first five years of operation; see Tait *et al.*, 1989: 194). Migrants, like other workers, move in and out of self-employment, as well as in and out of unemployment. The analyses of socioeconomic status and earnings that follow include employers and the self-employed. But we need to understand their experience in a somewhat different fashion from that of wage and salary earners.

Economists and sociologists have advanced two main theories for understanding how immigrants (and women) fare in labour markets. The first type stems from neoclassical theories of human capital and examines the role of training and experience in labour market performance. A key problem for migrants is the international transferability of their human capital. The second type of theory derives from status attainment models that explore how social destinations depend on social origins, or how inequalities

among families are transmitted from one generation to the next. In both theories, education plays a central role. There are several recent reviews of these approaches, and variants of them, which the reader may consult for further detail (Chiswick, 1982; Stromback, and Beggs and Chapman in Baker and Miller, 1988; Evans and Kelley, 1986; Marini, 1989).

Neither approach, however, dominates the field, and each has generated dissent of various kinds. Strober (1990) and Campbell *et al.* (1991) review the main alternatives, some of which suggest complementary rather than conflicting interpretations of group differences. Although the analysis presented here draws mainly on the human capital and status attainment perspectives, some findings are consistent with human capital, status attainment, screening, and market segmentation theories. The lower status and financial returns to schooling and qualifications experienced by the members of some ancestry groups, especially women, are a case in point.

The Australian census provides almost no information on the social status of parents. So in any event it is not possible to deploy the full status attainment approach. However, we can incorporate its spirit by including occupational achievement as a labour market outcome linking schooling to earnings. Economists typically focus on unemployment and earnings, and sometimes on labour market segmentation (e.g. Norris, 1989). Sociologists routinely investigate group differences in occupational status, defined in terms of prestige or socioeconomic status. Although census data do not allow us to explore the effect of social origins on educational attainment and career beginnings (the first links in the causal chain of a standard model of status attainment), we can examine how school and post-school qualifications affect other outcomes, like current occupational status and earnings (Broom *et al.*, 1980).

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Existing empirical studies of the labour market experience of immigrant and other Australians have two main limitations compared with the analyses presented here. First, they use country of birth and birthplace of parents to identify ethnic groups. So their ability to identify ethnic group differences is somewhat restricted. For example, they cannot identify ethnic groups that originate from diverse birthplaces, like the Chinese, the Jews, and even the French, many of whom came from former French territories. Second, they are based on samples and so use rather broad aggregations of birthplaces. Even large samples like the 1981 Census public use tape allow researchers to distinguish only rather broad groupings such as southern Europeans, persons born in Asia (not all of them ethnic Asians), or in some cases only persons from non-English-speaking countries generally.

Previous studies have found that the Australian labour market penalises weak English-language competence and discounts pre-migration schooling and labour force experience. As a result, immigrants suffer higher rates of unemployment, enter lower status occupations, and receive less pay than they might otherwise expect. Some research suggests that migrant women suffer a dual disadvantage: sex and ethnic discrimination. For example, Collins (1988: 194) suggests that '...[migrant] women have been more disadvantaged than men at home and in the workplace'. The Bureau of Labour Market Research (1986), Stromback (in Baker and Miller, 1988), Jones (1988) and Wooden et al. (1990) provide recent overviews of relevant Australian research.

The general analytic approach adopted in most studies, including this one, involves estimating multivariate equations and comparing how different groups fare in the labour market relative to their human capital. The multivariate model spells out the theoretical relationship between endowments like schooling, qualifications and experience to outcomes such as unemployment, socioeconomic

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status, and earnings. The more human capital workers supply to the labour market, the better they can expect to do relative to others.

The strength of the empirical relationship between inputs and outcomes may vary across labour markets (city versus country; core industries versus the periphery), and from group to group (migrants versus native-born; women versus men). The present study focuses on the national pattern, not regional variations. Because it uses full census counts for all groups except the Anglo-Celtic majority, it does not employ conventional tests of statistical significance in evaluating group differences. Sampling error of the usual variety does not arise. The analytic strategy is rather to isolate differences that materially affect the odds of unemployment, and the status and dollar returns to schooling and qualifications. Standard errors of estimates are reported only for the Anglo-Celtic comparison group, which, because of its very large size, is a sample of its parent population.

4. Data Sources

The most comprehensive source of information about current sex and ethnic inequalities in the Australian labour market is the 1986 Census. It provides a complete enumeration of the Australian people, with data on unemployment, jobs and incomes. Because it also collects information on social and demographic characteristics like age, sex, and country of birth, it allows socioeconomic outcomes among many different groups to be compared. The 1986 Census has the further advantage that it was the first Australian census to collect information on ethnic origin, or ancestry.

For more than a quarter of a century, Australian social scientists have lamented the deficiencies of country of birth as an index of ethnic origin. National boundaries do not always coincide with the historical, geographical, and cultural bonds that unite groups with a common ancestry. Even if they once did, wars and political realignments can sever the nexus. Partly in response to these concerns, and to the growing importance of multiculturalism, the 1986 Census of Australia broke new ground by including a question on ancestry. Together with information on birthplace, birthplace of parents, religion, and language spoken at home, these ancestry data throw new light on the ethnic composition of the Australian population.

For some immigrant groups, like the Italians, ancestry data provide little extra information beyond conventional birthplace data. Most immigrant Australians of Italian ancestry were born in Italy,

although some came from Egypt and Malta as well. However, the members of other ethnic groups, for example persons of Jewish or Chinese ancestry, cannot be identified from birthplace figures because they come from many different overseas countries, where they were often an ethnic minority. To identify such groups we need ancestry data. Ancestry data also allow us to identify second- and third-generation members of different descent groups. However, because of limited space, this analysis deals only with immigrants.

The inclusion of an ancestry question in the 1986 Census was recommended by the 1986 Population Census Ethnicity Committee (Australian Bureau of Statistics, or ABS, 1984), to illuminate the consequences of ethnic diversity and multiculturalism. It supplemented an existing self-identification question used to distinguish Aboriginal Australians and Torres Strait Islanders (TSIs). An ancestry question has, of course, been asked for many years in the Canadian and New Zealand censuses, as well as the 1980 American census (Ryder, 1955; Lowry, 1980; Lieberson and Waters; 1988). Earlier Australian censuses had included a question about racial origins, mainly to identify Aboriginal Australians.

Studies of the relationship between birthplace, language use and ancestry among overseas-born Australians suggest that the ancestry data provide valid and reliable information about the ethnic origins of immigrants and their children (ABS, 1990a). Only 3.9 per cent of immigrants reported ancestries that could not readily be classified. But the concept of ancestry seems more ambiguous, and less salient, for native- than foreign-born persons. Among second- and third-generation Australians non-response rose to 6.5 and 10.6 respectively (Jones, 1991: 3). Also, intermarriage among the descendants of immigrants means that Australian-born persons are more likely to report mixed ancestries than immigrants. About one in seven Australian-born persons reported a mixed ancestry,

compared with one in thirty from Southern Europe and Eastern Asia (ABS, 1990a: 10).

Questions about ethnic identification like that included in the 1986 Census of Australia tell us nothing about how strongly a person identifies with a particular ethnic group. Those identifying as Aboriginal Australians, or Jewish Australians, or Chinese Australians, vary in the strength of their ethnic identification. The mere fact of identification is an uncertain guide to the strength of group consciousness, the potential for group action, and possible differences in behaviour (such as language retention, intermarriage, and religious maintenance). But it is worth noting in passing that in Australia today ethnic origin is more important as a source of social identity than an explanatory concept often invoked by sociologists, social class (Baxter *et al.*, 1991: 289-90).

Because ethnic identification is a matter for individuals, not governments, to decide, estimates can and do fluctuate in unexpected ways. In Australia, the enumerated population of Aborigines (including TSIs) increased substantially between 1971 to 1976, by 39 per cent; actually declined between 1976 and 1981, by about one per cent; and then increased greatly again between 1981 and 1986, by 42 per cent. Demographic factors cannot account for these shifts in identification. In fact, a demographic projection based on the 1981 census results and other information gives an estimated 1986 count of 174,000 persons, some 50,000 persons fewer than the 1986 census count (ABS, 1989a: 10).

We lack similar trend data for other ethnic groups. But we can be sure that, if a set of instructions like those used in North America had been used in the Australian census, it would have identified more hyphenated Australians (ABS, 1984: Appendix A; Lowry, 1980: 18). However, as the census evaluation study concludes, the ancestry statistics seem quite reliable for all groups except

Anglo-Celts (ABS, 1990a: 24). Among them, there seems to be substantial under-reporting of Irish and Scottish origins, in favour of British and Australian, or non-response (Price, 1988: 5). In these analyses, therefore, persons from all these English-speaking ancestries form a single group: Anglo-Celts. Specifically, it comprises persons of Australian, British, Breton, English, Irish, Scottish, Welsh, and other British ancestries. It does not include persons from English-speaking countries who gave other specific ancestry responses (for example, Canadian, New Zealander, or South African).

The definition of ancestry groups follows coding conventions developed by Price for allocating mixed ancestries in a set of special tabulations archived in the Social Science Data Archives at the Australian National University (1986 Special Ancestry Tabulations, UX0212 to UX0217). They assign any person reporting a mixed ancestry other than Anglo-Celtic to that other ancestry, regardless of whether it was mentioned first or second. More precisely, persons who said they were Italian-Australian or Australian-Italian were treated as being of Italian ancestry. For other mixed categories, the present study differs from Price's procedures by including some persons in more than one ancestry groups. For example, in analyses not discussed here Greek-Macedonians and Macedonian-Greeks appear twice: once among Greeks and once among Macedonians. In Price's coding scheme, such persons would be counted only once, as Macedonians. Apart from the fact that there is no compelling reason to allocate persons of mixed ancestry to one group rather than another, this study is able to include them in both groups because of the way data were extracted from the census files.

Accessing personal records from an Australian census is a time-consuming task. Not only are there many million personal records, but there are also records for the family groups and households in which they live. Previous studies of migrants and

women in the labour market have often used public use samples or matrix tapes. However, for 1986 neither source is entirely satisfactory for present purposes. First, the public use sample truncates some crucial variables, like period of residence in Australia and age. Second, matrix tapes are limited in their ability to incorporate detailed classifications like age and occupation.

To strike a balance between the required detail in the relevant classifications of data and the range of ethnic groups included, a partial sample of the majority Anglo-Celtic group was extracted. But a full sample was taken for all other ancestry groups. In order to carry out this task efficiently, only personal data was extracted, not data on households or families. With the benefit of hindsight, it is apparent that this restriction was unnecessary. However, adopting this more limited approach simplified the task of data extraction. But it comes at the cost of omitting potentially relevant household and family information, like region and family composition.

The census Final Unit Record File (FURF) contains records for some 15.6 million persons living in 4.2 million households distributed over 5.3 million families. It would clearly be a massive analytic task to include every person enumerated in the census, unless it was possible to create a very large table file using the ABS Table Programming Language. Tables created by that system have a practical maximum of two billion possible cells. This may seem a large figure, but in the present context it is not. One must allow one cell for every logically possible combination of personal characteristics, even though many such possibilities do not occur empirically. For example, the creation of just two labour force experience variables (pre- and post-migration experience) requires details on the following variables: single years of age for persons between the ages of 15 and 64 years (50 values); year of arrival in Australia for the overseas-born (42 values); and age left school (12

values), all cross-tabulated by one another and by sex, immigrant generation, and ancestry (over 30 groups). So 4.5 million cells are needed just to create two variables. Adding to these requirements the ANU status scale (it has over 300 distinct values) generates 1.5 billion possibilities. So one more binary contrast would exceed the limit of the table generator. A different approach was obviously required. The decision was taken to sample the two largest ancestry groups: Australians (1.2 millions) and British (3.3 millions). By sampling these two groups and including all members of other groups, it was possible to create a set of analytic samples totaling fewer than two million persons. The sampling task was carried out with the assistance of Ms Rosemary Crocker of the ABS, using the SAS programming language (SAS Institute, 1985).

The SAS data extraction required just one pass through FURF. Each personal record was scanned to determine ancestry and immigrant generation. Persons not in the labour force, those who failed to state their birthplace or that of their father, persons with an invalid school-leaving age, and immigrants who failed to state their period of residence in Australia were excluded. If the person was a third-generation Australian of Anglo-Celtic ancestry, a random sample of one in fifteen was taken (yielding a sample of 236,856 persons). If the person was a first- or second-generation Australian of Anglo-Celtic ancestry, a one-in-five sample was taken (yielding a sample of 223,391 persons). All persons of other ancestries were retained to form a series of comparison groups, totaling a further 1,216,715 persons.

Information retained for each person in the Australian labour force consisted of the following data: Aboriginal and TSI origin; age; age left school; ancestry response (both first and second responses); country of birth of father, mother and respondent; Australian citizenship; proficiency in speaking English; government employment; hours worked; personal income from all sources;

industry; labour force status; marital status; occupation; period of residence in Australia; highest qualification and when it was obtained; religion; sex; student status and type of institution attended; and method of travel to work (in order to identify those who worked at home).

These data provide the basis for the analyses that follow. Throughout, Australians of Anglo-Celtic origin serve as a basic reference group. As Table 1 shows, persons of Australian, British or Irish origin constitute almost five of the 7.1 million persons in the Australian labour force as a whole. In percentage terms, they represent about two-fifths (42%) of the immigrant generation; about three-fifths (57%) of the second generation; and over four-fifths (85%) of the third generation. The basic question that drives the analysis is how well other groups fare relative to members of the dominant stock, and whether any observed differences are consistent with possible discrimination.

In comparing labour market outcomes among different ancestry and sex groups, a primary focus is on human capital acquired during and after adolescence: schooling, qualifications, and labour force experience. However, many immigrants went to school and started work in other countries. So it is essential to distinguish human capital acquired before and after migration, simply because Australian employers may treat them differently.

The FURF data provide most of the detail needed to make such distinctions, detail lacking in the 1986 public-use sample (ABS, 1986). These data consist of age in single years from 15 to 64; age left school in single years from 11 or younger up to 21 and over; the year in which persons obtained their highest qualification, with three categories for years between 1982 and 1986, four categories for intercensal periods between 1961 to 1981, and a residual category

for 1960 or earlier; and residence in Australia, in single years from 1947 to 1986, with a residual category for the period before 1947.

For most immigrants, these data are sufficient to calculate years of schooling completed before and after arrival in Australia, [1] as well as years of overseas and Australian labour force experience. Estimates for overseas qualifications are inexact, because the year in which the highest qualification was obtained was coded into categories, not single years. Subject to this limitation, the analysis identifies any qualification definitely obtained before migration. In theory, having a post-school qualification should improve labour market outcomes. But because Australian employers may not recognise overseas qualifications, they may not confer so much of an advantage. In the Australian labour market, formal credentials count heavily (Broom *et al.*, 1980: 74-8). So the analyses that follow identify different post-school credentials. A limitation inherent in the census data is that they provide no information on school-based credentials (e.g. the school certificate, higher school certificate, and the like). They are indexed imperfectly by years of schooling.

A well-known difficulty with estimating labour force experience from census and survey data is that the usual measure (the difference between present age and age at completing full-time education) is defective for many women because of their intermittent labour force activity. However, it was possible to use National Social Science Survey (NSSS; see Kelley and Bean, 1988) results on occupational histories to adjust potential labour force experience to take account of the probability of part-time and intermittent work. This adjustment is approximate, because it is

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1 In this study, as in that by Gregory *et al.* (1989: 241), we assume that formal schooling began at six years of age. That is to say, we do not include kindergarten or preschool as part of formal schooling. Some other studies do (e.g. Chapman and Miller, 1983: 236) and assume a starting age of five years.

based on the aggregate relationship of age to the pattern of full- and part-time work over the occupational life cycle, not personal work histories (for another adjustment, see Chapman and Miller, 1983: 234-5). The full detail of this procedure, and of the procedure for allowing for post-school education, is available elsewhere (Jones, 1992). We simply note that the adjustment for part-time and intermittent work hardly affected the estimates of labour force experience for men. For women, however, it reduced the usual measure by as much as one-third. Because women from different ethnic backgrounds may have lower, or higher, participation rates than women in general (for relevant evidence, see Evans, 1984), these adjustments will not always be optimal. But some adjustment is better than none.

The labour market outcomes on which the Australian census provides information are unemployment (unemployed persons looking for full or part-time employment, contrasted with employers, self-employed, employees and unpaid helpers); job position in the hierarchy of social status (an occupational status scale developed for the Australian Standard Classification of Occupations; see Jones, 1989b); and hourly income (the weekly income reported by paid workers in the census, divided by the number of hours worked last week). The census question on income sought information only in broad categories. Category mid-points were used to calculate hourly income, except for the highest open-ended category where a Pareto estimate of $70,000 was derived (for the method, see U.S. Bureau of the Census, 1966: 216-7). Hours worked last week was also collected in categories. NSSS data on actual hours worked provided mid-points for the eight categories reported in the 1986 Census. However, these were so close to nominal mid-points that a NSSS estimate was used only for the last open-ended category (set to 60 hours per week). Although the census reports income from all sources, my analyses treat income as occupational earnings. For reasons discussed below,

only full-time workers are included in the earnings analysis. We turn now to substantive results for four immigrant groups: persons of Anglo-Celtic, Dutch, Italian, and Chinese ancestry.

5. Labour Market Outcomes: Descriptive Background

The four ancestry groups selected for comparison span the spectrum of immigrant adjustment to the Australian labour market. Anglo-Celts have long constituted the dominant ancestry in contemporary Australia, although their share in recent migration has been declining. The Dutch and the Italians provide examples of the northwestern and southern European experience. The Chinese illustrate recent Asian pattern. Although some have links with long-established Chinese groups who settled in Australia in the nineteenth century, others are political and economic refugees from countries in southeast Asia like Vietnam and Cambodia.

Figure 1 charts the ebb and flow in their respective migration patterns over the postwar period. The heavy continuous line in the middle of the graph shows the trend among all new settlers. If the volume of immigration had been more or less constant over the years, we would expect this line to be fairly straight, averaging around two to three per cent of the total each year. In fact, after a sharp surge in 1949 and 1950 with the arrival of many thousand European refugees, there is a steadily rising trend until 1970, followed by a rapid decline to a low point coinciding with the economic recession of 1975. Over the next five years, the volume of immigration increased again, due mainly to the influx of Indochinese refugees. It has since declined, although the drop in 1986 is more apparent than real. The census was taken at the end of June, so the 1986 figure is for only half a year.

FIGURE 1. YEAR OF ARRIVAL IN AUSTRALIA
OF SELECTED ANCESTRY GROUPS(a)
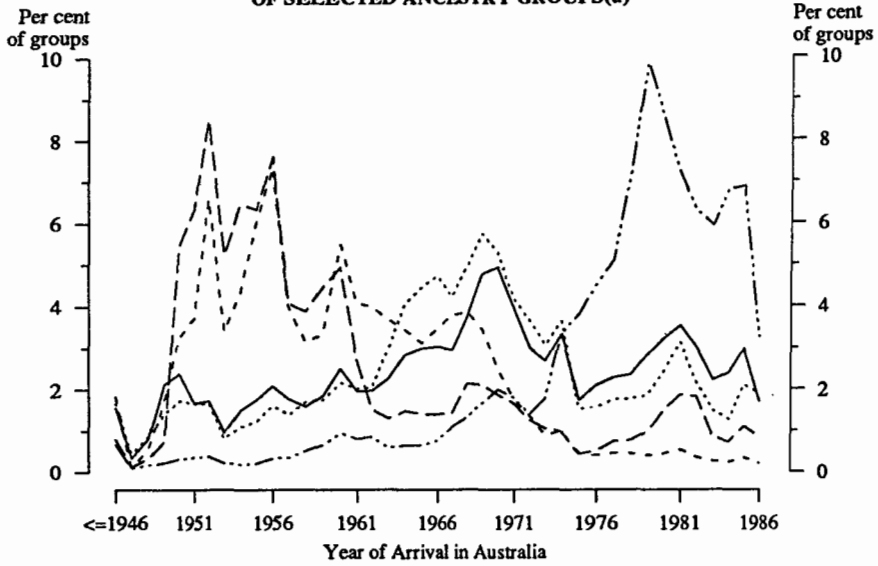
(a) Figures relate to persons 15 years and older in the Australian labour force.

——————— All Overseas-born

.... Anglo-Celts

— — — Dutch

- - - - - Italians

—...— Chinese

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Anglo-Celtic immigration follows the general trend until 1962. Then it rises above the trend line as immigration from other parts of Europe declined. But from 1975 on it falls below the long-term trend because of increased immigration from southeast Asia and the Middle East. It is hardly surprising that the Anglo-Celtic pattern largely parallels the overall trend. Between 1947 and 1975 persons from the United Kingdom and Ireland accounted for 40 to 50 per cent of all settler arrivals in Australia. Since 1975, however, they have accounted for no more than 25 per cent of the total. In recent years, Asian immigration has increased from a very low base to around one fifth of the total intake. In 1986, for example, one in six settler arrivals came from just three Asian countries: Vietnam, the Philippines, and Hong Kong (ABS, 1989b: 46).

Like the Italians and even the Chinese, the Dutch have a long history of settlement in Australia. Indeed, their contacts predate European settlement. Before European settlement, Dutch seafarers probed the mysteries of the great southern land. The names of Arnhem Land, Tasmania, and Dirk Hartog Island remain as testimonials to their voyages of European discovery (Broeze in Jupp, 1988: 352-4). As for the more recent history, Figure 1 shows that Dutch postwar immigration to Australia peaked in the early 1950s. Almost two in five (38.4%) of those still in employment at the time of the 1986 Census arrived in Australia between 1950 and 1955. Only one in fourteen (7.3%) arrived after 1980. Most Dutch settlers (83%) were born in the Netherlands, but others came from spheres of former colonial influence like Indonesia and Sri Lanka (5 and 3% respectively). So they were already second-generation immigrants when they arrived in Australia, as were those who had remigrated from English-speaking countries like New Zealand, the United States, Canada, and South Africa (5%). Even in the Netherlands itself, English is widely spoken as a second language. Previous research shows that the Dutch, along with other immigrants from

northwestern Europe, fare reasonably well in the Australian labour market (e.g. McAllister and Kelley, 1984).

Postwar economic recovery came more quickly to the Netherlands than it did to Italy. As a result, Italian migration to Australia remained relatively high until the mid-1960s, a decade after Dutch immigration had passed its peak. Now, however, Italian emigration has reverted to an earlier pattern favouring mobility to nearby European countries, rather than trans-oceanic migration to the Americas or Australia. As Table 1 above shows, in 1986 one in two workers of Italian ancestry was a second or third-generation immigrant, a higher figure than among the Dutch (43%) but much lower than among the dominant ancestry group, Anglo-Celts (84%). Italian migration to Australia expanded greatly in the 1920s, when the chances of settling in the United States diminished because of new legislative controls (Borrie, 1954: 7).

As for the Chinese, for much of the twentieth century Australia's restrictive immigration policy (the 'White Australia' policy) effectively prohibited their permanent settlement, along with that of other non-European groups. Australia at federation had a Chinese population of about 30,000, some survivors from the gold rushes, others workers indentured to Chinese or foreign businessmen. By 1950, their number had declined to fewer than 10,000 (Wang in Jupp, 1988: 304). Several years later, a relaxation in the naturalisation provisions allowed some new migration and family reunion. In the 1960s, further relaxations in immigration policy allowed Chinese the right to permanent settlement (Chin in Jupp, 1988: 318), changes that not only helped correct the high masculinity rate in the Chinese-Australian population but also widened its geographical base. The new arrivals came from the People's Republic of China (PRC), Timor, Hong Kong, Singapore, Malaysia and, later, Vietnam.

The line for Chinese immigration in Figure 1 shows only a trickle of new arrivals until 1956, some increase during the next decade, and heavy inflows since. In 1986, four in every five immigrant Chinese workers had been born in either the PRC, Hong Kong, Malaysia or Vietnam (mostly refugees arriving in the 1970s). The remainder came from a wide variety of other countries. Australia's Chinese population today is larger and more heterogeneous than it has been for a century. It also consists largely of immigrants, born to Nanyang Chinese in southeast Asia.

Table 2. English-language Competence Reported by Immigrants of Anglo-Celtic, Dutch, Italian and Chinese Ancestry

Ancestry Group	Percentage of Immigrant Group That Speak English at Home	
	Only	Not Well, Not at All
MEN		
Anglo-Celts	97.7	0.0
Dutch	62.0	0.5
Italian	16.3	14.4
Chinese	9.7	27.0
WOMEN		
Anglo-Celts	97.9	0.0
Dutch	56.7	0.5
Italian	11.4	16.8
Chinese	10.6	27.1

These four immigrant groups differ not just in the length of time their members have been in Australia but also in English-language competence. Theory suggests and research shows that the ease with which immigrants adjust to the Australian labour market is strongly influenced by how long they have been in the country and by how well they speak the language. Table 2 reports differences in overall English-language ability based on responses to a census question asking whether or not a person spoke a language other than English at home. Persons speaking a language other than English were asked to rate their competence in English in one of four categories: very well, well, not well, and not at all.

Even the Anglo-Celtic group contains a few persons who spoke a language other than English at home. Welsh and Gaelic speakers aside, bilingualism among Anglo-Celts mainly reflects marriages with members of other ancestries, either in former British colonies before migration or after arrival in Australia. Although most (four out of five) immigrant Anglo-Celts had been born in the United Kingdom or Ireland, there were sizable minorities from former Asian and African colonies like Malaysia, Singapore, India, Sri Lanka, Kenya, Zambia and Zimbabwe.

Fewer Dutch spoke English at home, but almost none rated their competence in English as non-existent or poor. Among the Italians and Chinese, however, the maintenance of native tongues in the home was much higher. Only one in six Italian, and one in ten Chinese, immigrants used English in the privacy of their homes. More importantly, substantial minorities of those in the labour force rated their spoken English as no better than poor. Taking proficiency in the English language as a rough index of social distance from the host society, we can see that these groups rank themselves in the order shown in Table 2.

Tables 3 to 6 list descriptive labour force statistics for each immigrant group, separately for women and men. They distinguish schooling and labour force experience according to whether it was obtained before or after migration to Australia, and show how many had an overseas qualification. They also distinguish Australian citizens. Immigrant Anglo-Celts have similar amounts of primary and secondary schooling as the Australian born, about ten years on average. However, around seven of these ten years represent schooling undertaken before migration and three after arrival in Australia. Averages conceal wide variation in educational experiences, as the large standard deviations suggest. Persons educated entirely overseas have zero years of Australian schooling, and, conversely, persons educated entirely in Australia have zero

Table 3. Descriptive Labour Force Statistics on Immigrants of Anglo-Celtic Ancestry (1986 Census of Australia)

Characteristic	Men		Women	
	Mean	Std. Dev.	Mean	Std. Dev.
Years of Schooling:				
Overseas	7.02	4.13	6.84	4.31
Australian	2.89	4.26	3.19	4.39
Proportion with Post-school Qualification:				
Postgraduate	0.03	0.17	0.02	0.14
Degree	0.07	0.25	0.05	0.22
Diploma	0.05	0.21	0.06	0.23
Trade Certificate	0.23	0.42	0.02	0.15
Other Certificate	0.09	0.29	0.16	0.37
Still Studying	0.06	0.23	0.06	0.24
Proportion Unemployed	0.08	0.28	0.09	0.29
Labour Force Experience:				
Overseas (Adjusted)	7.24	8.50	5.24	6.39
Australia (Adjusted)	14.32	9.34	11.19	7.21
EmploymentCharacteristics#:				
ANU 3 Status Score	34.36	21.14	31.97	17.47
Average Hourly Income	10.46	5.15	8.23	3.53
Proportion Employers	0.05	0.23	0.04	0.19
Proportion Self-employed	0.10	0.30	0.06	0.25
Proportion Wage & Salary	0.85	0.36	0.87	0.32
Zagorski's Index of Industrial Strength	0.39	0.76	0.28	0.73
Proportion In Government Employment	0.25	0.43	0.26	0.44
Proportion Working from Home	0.02	0.16	0.06	0.24
Other Characteristics:				
Proportion Married	0.67	0.47	0.63	0.48
Proportion with Foreign Qualification	0.16	0.36	0.11	0.31
Proportion with Australian Citizenship	0.45	0.50	0.43	0.50
Total Number*	88,482		55,823	

Figures in this panel exclude unemployed persons. 'na' means not applicable. * Figures for Anglo-Celts relate to a one-in-five sample of the relevant population in the Australian census. Figures for other immigrant groups relate to enumerated populations, not samples.

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Table 4. Descriptive Labour Force Statistics on Immigrants of Dutch Ancestry (1986 Census of Australia)

Characteristic	Men		Women	
	Mean	Std. Dev.	Mean	Std. Dev.
Years of Schooling:				
Overseas	6.50	4.81	5.69	4.70
Australian	3.82	4.58	4.41	4.57
Proportion with Post-school Qualification:				
Postgraduate	0.02	0.15	0.02	0.13
Degree	0.05	0.22	0.04	0.20
Diploma	0.05	0.21	0.06	0.23
Trade Certificate	0.29	0.45	0.02	0.15
Other Certificate	0.10	0.30	0.18	0.38
Still Studying	0.05	0.21	0.06	0.23
Proportion Unemployed	0.07	0.26	0.08	0.26
Labour Force Experience:				
Overseas (Adjusted)	4.30	6.52	2.22	3.67
Australian (Adjusted)	20.52	9.51	11.68	5.41
EmploymentCharacteristics#:				
ANU 3 Status Score	34.11	19.89	31.34	17.32
Average Hourly Income	10.13	4.93	7.88	3.67
Proportion Employers	0.09	0.29	0.07	0.26
Proportion Self-employed	0.17	0.37	0.12	0.33
Proportion Wage & Salary	0.74	0.44	0.78	0.42
Zagorski's Index of Industrial Strength	0.31	0.76	0.21	0.70
Proportion In Government Employment	0.22	0.42	0.25	0.43
Proportion Working from Home	0.05	0.21	0.10	0.31
Other Characteristics:				
Proportion Married	0.78	0.41	0.72	0.45
Proportion with a Foreign Qualification	0.07	0.26	0.06	0.24
Proportion with Australian Citizenship	0.76	0.42	0.74	0.44
Proportion that Speaks Poor English	0.01	0.07	0.01	0.07
Total Number	39,008		19,636	

Figures in this panel include employed persons only. 'na' means not applicable.

Table 5. Descriptive Labour Force Statistics on Immigrants of Italian Ancestry (1986 Census of Australia)

Characteristic	Men		Women	
	Mean	Std. Dev.	Mean	Std. Dev.
Years of Schooling:				
Overseas	6.00	3.67	4.99	3.69
Australian	2.74	4.38	3.69	4.63
Proportion with Post-school Qualification:				
Postgraduate	0.01	0.08	0.01	0.09
Degree	0.02	0.15	0.02	0.13
Diploma	0.01	0.12	0.02	0.14
Trade Certificate	0.22	0.41	0.04	0.19
Other Certificate	0.04	0.19	0.06	0.24
Still Studying	0.02	0.15	0.03	0.16
Proportion Unemployed	0.06	0.23	0.06	0.24
Labour Force Experience:				
Overseas (Adjusted)	6.46	6.95	3.18	3.97
Australian (Adjusted)	22.17	9.44	12.30	4.92
Employment Characteristics#:				
ANU 3 Status Score	25.32	17.09	23.45	16.46
Average Hourly Income	8.68	3.84	6.82	2.93
Proportion Employers	0.11	0.31	0.07	0.26
Proportion Self-employed	0.17	0.38	0.13	0.34
Proportion Wage & Salary	0.72	0.45	0.78	0.42
Zagorski's Index of Industrial Strength	0.33	0.83	0.22	0.69
Proportion In Government Employment	0.19	0.39	0.16	0.37
Proportion Working from Home	0.04	0.19	0.10	0.29
Other Characteristics:				
Proportion Married	0.84	0.37	0.81	0.39
Proportion with a Foreign Qualification	0.03	0.17	0.01	0.11
Proportion with Australian Citizenship	0.75	0.43	0.73	0.44
Proportion that Speaks Poor English	0.14	0.35	0.17	0.37
Total Number	94,717		42,186	

Figures in this panel include employed persons only. 'na' means not applicable.

Table 6. Descriptive Labour Force Statistics on Immigrants of Chinese Ancestry (1986 Census of Australia)

Characteristic	Men		Women	
	Mean	Std. Dev.	Mean	Std. Dev.
Years of Schooling:				
Overseas	10.76	3.31	10.52	3.19
Australian	0.97	2.42	0.84	2.33
Proportion with Post-school Qualification:				
Postgraduate	0.05	0.21	0.02	0.15
Degree	0.16	0.36	0.11	0.31
Diploma	0.05	0.22	0.04	0.19
Trade Certificate	0.04	0.20	0.01	0.09
Other Certificate	0.06	0.23	0.15	0.36
Still Studying	0.10	0.29	0.10	0.30
Proportion Unemployed	0.13	0.34	0.15	0.36
Labour Force Experience:				
Overseas (Adjusted)	9.03	9.91	5.73	5.46
Australian (Adjusted)	7.84	7.28	4.64	3.52
EmploymentCharacteristics#:				
ANU 3 Status Score	35.01	24.90	29.64	20.87
Average Hourly Income	9.76	5.29	8.10	3.71
Proportion Employers	0.12	0.32	0.07	0.26
Proportion Self-employed	0.08	0.27	0.07	0.25
Proportion Wage & Salary	0.80	0.40	0.85	0.36
Zagorski's Index of Industrial Strength	0.31	0.74	0.37	0.70
Proportion In Government Employment	0.17	0.38	0.23	0.42
Proportion Working from Home	0.02	0.15	0.04	0.20
Other Characteristics:				
Proportion Married	0.68	0.47	0.66	0.47
Proportion with a Foreign Qualification	0.12	0.32	0.13	0.34
Proportion with Australian Citizenship	0.67	0.47	0.66	0.47
Proportion Speaking Poor English	0.27	0.44	0.27	0.44
Total Number	38,513		30,099	

Figures in this panel include employed persons only. 'na' means not applicable.

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years of foreign schooling. Almost two out of three men (63%) completed their schooling before emigrating to Australia. A further one in every six received all their schooling in Australia. The remaining one-sixth had a mixture of local and overseas experience.

Dutch immigrants have similar amounts of schooling as the Anglo-Celts, except that more of it was obtained after migration. There are two sources of this difference. First, more Dutch immigrants arrived as children. Second, Dutch migration to Australia declined substantially after 1960. So this group includes more immigrant children who finished school in Australia and have since entered the labour force. As for the Italians, they have a year or so less total schooling than either the Anglo-Celts or the Dutch, but comparable amounts of Australian schooling as Anglo-Celts. Although recent Italian migration to Australia has been quite low, it tapered off a decade later than among the Dutch. So the Italian group has relatively fewer workers educated in Australia.

Although a high proportion of the Chinese speaks poor English, they have one to two years of schooling more, on average, than the other groups (11.7 years for men and 11.4 years for women). But because they are mostly recent arrivals, most of those currently in the labour force obtained their schooling overseas. Very few of those who arrived as children had entered the Australian labour market by 1986.

Figures 2 and 3 provide more information on the actual years of schooling that members of these immigrants actually obtained. Italians dominate the low end of the distribution, with more than a quarter having only elementary schooling. In fact, the most frequent educational outcome for Italian migrants was six or fewer years of schooling (twelve or younger when they left school). Most Anglo-Celts and Dutch settlers, on the other hand, left school in their mid-teens. Two to three in every five of their number were

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fifteen or sixteen years old when they left school, with nine or ten years of schooling. More Dutch than Anglo-Celtic immigrants were over sixteen when they left school, but not as many as among the Chinese. According to the census data, between 30 and 40 per cent of Chinese immigrants were over 18 years of age when they completed their secondary education. Below we consider possible reasons for these high school-leaving ages, and for the weaker effects of Chinese schooling on labour market outcomes.

The Chinese also have high proportions with a tertiary qualification. According to Table 6, 26 per cent of men and 17 per cent of women have a diploma, degree or postgraduate qualification. These figures exceed those for the Anglo-Celts and Dutch (12 to 13%), and far exceed those for Italians (4 to 5%). However, many fewer have a trade or other technical qualification, the most common form of credential among other groups. As for time spent in the labour force, Italian men have an advantage over the other groups, mainly because they left school earlier. The Chinese have the least work experience because they left school later and have high proportions with tertiary qualifications. In each ancestry group, women have less experience than men because of interrupted work careers.

**FIGURE 2. YEARS OF SCHOOLING AMONG IMMIGRANT MEN
OF ANGLO-CELTIC, DUTCH, ITALIAN AND CHINESE ANCESTRY**
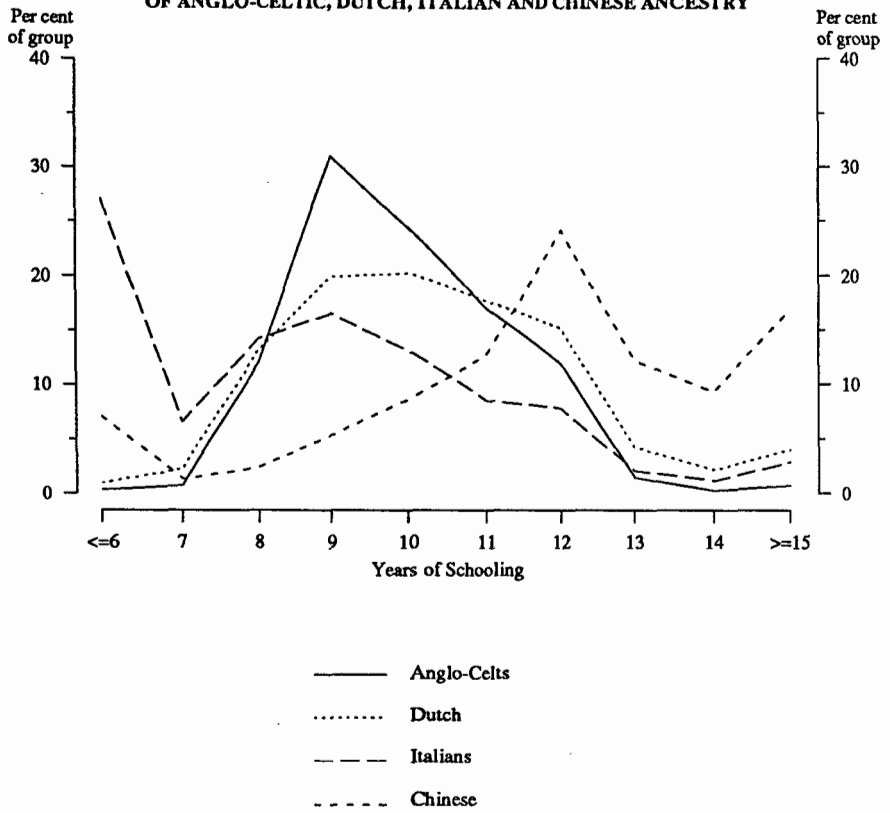
**FIGURE 3. YEARS OF SCHOOLING AMONG IMMIGRANT WOMEN
OF ANGLO-CELTIC, DUTCH, ITALIAN AND CHINESE ANCESTRY**

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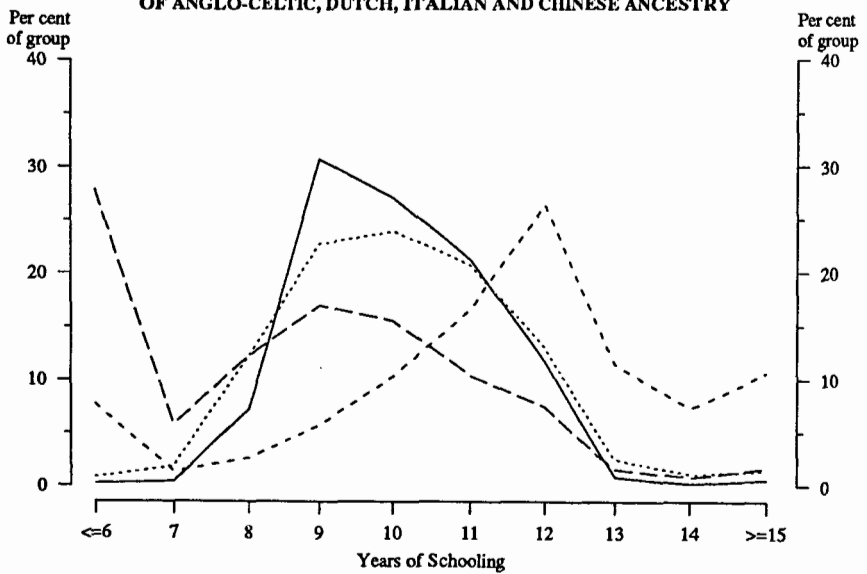
6. Unemployment

The basic model for explaining unemployment is very simple. Unemployment is primarily a function of schooling, qualifications and experience. It is also indirectly related to marital status, a proxy for differences in economic incentives to find paid work. Because they have family responsibilities, married men may accept marginal work. Moreover, employers with the option may sack unmarried before married workers. If so, married men will be less exposed to the risk of unemployment. The situation for married women is less clear-cut. They can sometimes fall back on a husband's wages, or even his unemployment benefit if he is receiving the married rate (in such cases, a married woman is ineligible for unemployment benefits in her own right; see Pech, 1991). So married women may have weaker incentives to enter paid employment. On the other hand, if they withdraw from the labour market altogether when work is hard to find, they will not even appear in the unemployment figures. Widowed, divorced and deserted women may have the option of claiming a widow's or supporting parent's benefit rather than registering as unemployed. In money terms, the benefits are equivalent, although pensioners may receive assistance with housing and other concessions (Australia, Department of Social Security, 1986: 19-31, 132-5). Some employers may prefer young (unmarried) juniors to older (married) women because they cost less to employ. But other employers wanting only part-time workers may prefer married women because they offer a more tractable labour supply than their unmarried 'sisters', are more content with short hours, and often have prior work experience. In

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other words, how marriage affects the risk of unemployment is a complex matter that varies for women and men.

The model of unemployment shown in Tables 7 through 11 does not include a direct measure of chronological age, even though age is strongly related to the chances of being unemployed. The reason is simply that age is functionally equivalent to labour force experience plus years spent at school and in post-school education. For any given level of schooling, recent and less qualified entrants on the labour market tend to be younger than more experienced and better qualified workers. This connection between age, education and experience is weaker among women, many of whom interrupted their careers to raise children. The method used in this study to adjust the usual experience measure means that, except for workers under 25 years of age, a woman with the same years of (adjusted) experience as a man will be older.

The parameter estimates yielded by the statistical model show that the risk of unemployment declines with increasing schooling, qualifications and experience. In a logistic regression, the predicted outcome is the ratio of two probabilities converted to the scale of natural logarithms. In the present context, the dependent variable is the logarithm of the chances of being unemployed relative to those of being employed. When the odds are the same (a fifty-fifty chance, and a ratio of one), this logarithm is zero. When unemployment is less likely than employment (the usual outcome), their ratio is less than one, so the log-odds is negative. Variables whose coefficients take negative signs in the tables reduce the risk of unemployment. Other variables increase it.

The effects for post-school qualifications are large. Among Anglo-Celts, for example, a degree reduces the risk of unemployment by about three times as much as one year of schooling. Of course, most people took three years to get a degree.

There are sex differences as well. Human capital has weaker effects for women than for men. An exception to this generalisation is labour force experience. Women's chances of unemployment decline more rapidly as their labour force experience increases, for two reasons. First, women finding it hard to get work may withdraw altogether from the labour market or transfer to other forms of income support like the widows' pension or sickness benefits (the 'discouraged worker' effect; see Carson *et al.*, 1989; Perry, 1988; Crompton, 1986). Second, women with more years of labour force experience tend to be older because of the way we adjusted this variable. So the 'retirement' effect cuts in earlier. However, this differential should have little effect below twenty-five years of adjusted labour force experience. Another sex difference relates to further study. Combining post-school study with job-seeking tends to improve the employment chances of men, but not women. Men may undertake more vocationally-oriented courses, and employers may encourage men, but not women, to undertake part-time courses relevant to their work.

At the time of the 1986 Census, the general rate unemployment stood at around 8 per cent, the figure observed among Anglo-Celtic men. Aggregate unemployment was somewhat lower among the Dutch and the Italians, but higher among the Chinese, a more recent and highly qualified group. Except among Italians, women were somewhat more likely to be unemployed than men. It is of course difficult to interpret these aggregate differences directly, because each group differs from the other in terms of the human capital their members brought to the labour market. The crude unemployment rates in Tables 3 through 6 provide no basis for concluding, say, that Australian employers treated Anglo-Celtic men fairly, favoured Italian migrants, and discriminated against women and the Chinese. Before venturing any such judgments, we need to consider how different endowments of human capital affect these average outcomes, and to compare like with like.

As already mentioned, schooling and qualifications reduce expected unemployment. So does further study, at least among men. Overseas labour force experience also helps reduce unemployment, but not as much as local experience. Married persons have a lower risk of unemployment, for reasons canvassed above. Foreign qualifications provide weaker protection against unemployment than qualifications obtained after arrival. Men who take out citizenship fare better than those who do not. But the weak (and opposite) effect for women has a large standard error and is not significantly different from zero. Although qualifying for citizenship takes time, once obtained it opens up the possibility of permanent government employment.

Among men, a single year of schooling has an effect more than ten times larger than a single year of experience. An earlier study by Inglis and Stromback (1986) reports stronger effects for Australian labour force experience, especially during the first five years of residence. It is difficult, however, to make a precise comparison with their study. First, they do not distinguish pre from post-migration labour force experience. Instead, they fit effects for age and period of residence for the foreign-born only. Second, they constrain residence (or local experience) effects to be the same among all foreign-born groups. As we can see from other tables, this assumption is a simplification. Finally, Inglis and Stromback fit residence effects using spline functions. In their formulation, the risk of unemployment falls sharply in the first two years of residence, drops away further over the next few years, but actually rises among men with between five and twenty years of Australian residence. Among women, the pattern is one of continuous decline. Figures 4 and 5 below provide some summary detail relevant to this issue, but before discussing them we need to compare the analyses for unemployment among members of other ancestry groups (Tables 8, 9, and 10).

Table 7. Measures of Effect from a Logistic Regression of Unemployment among Immigrants of Anglo-Celtic Ancestry

Characteristic	Men		Women	
	Parameter Est.	Standard Error	Parameter Est.	Standard Error
Years of Overseas Schooling	-0.236	0.014	-0.224	0.018
(Quadratic Term*100)	0.740	0.144	0.731	0.178
Years of Australian Schooling	-0.282	0.020	-0.280	0.024
(Quadratic Term*100)	-0.544	0.160	-0.418	0.196
Postgraduate	-1.317	0.145	-0.710	0.148
Degree	-0.869	0.077	-0.714	0.092
Diploma	-0.860	0.091	-0.884	0.105
Trade Certificate	-0.499	0.036	-0.139	0.099
Other Certificate	-0.812	0.062	-0.473	0.054
Still Studying	-0.464	0.065	0.056	0.062
Adjusted Overseas LFX	-0.013	0.004	-0.035	0.006
(Quadratic Term*100)	0.131	0.015	0.186	0.033
Adjusted Australian LFX	-0.025	0.002	-0.053	0.003
(Quadratic Term*100)	0.084	0.013	0.079	0.028
Married	-1.035	0.029	-0.666	0.035
Foreign Qualification	0.163	0.051	0.053	0.074
Australian Citizen	-0.139	0.026	0.032	0.032
Constant	1.360	0.180	1.253	0.223
-2 * ln LR (a)	50,049.03		32,861.36	
-2 * ln LR (b)	46,220.74		31,082.40	
Model Chi-Square	3,828.29		1,778.96	
Degrees of Fs	17		17	
Proxy R-squared	.076		.053	
Number of Cases	88,482		55,823	

Note: Before forming quadratic terms for overseas schooling and experience, for computational reasons we subtracted a constant of five years. For the Australian variables, we subtracted a constant of ten. See Mosteller and Tukey (1977: 284-7). The first likelihood ratio, LR(a), is for the null model with the constant term only. LR (b) relates to the current model.

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Table 8. Measures of Effect from a Logistic Regression of Unemployment among Immigrants of Dutch Ancestry

| Characteristic | Parameter Estimates | |
	Men	Women
Years of Overseas Schooling	-0.126	-0.127
(Quadratic Term*100)	0.923	0.682
Years of Australian Schooling	-0.184	-0.218
(Quadratic Term*100)	-0.810	-0.794
Postgraduate	-0.833	-0.552
Degree	-0.993	-1.055
Diploma	-1.137	-0.645
Trade Certificate	-0.255	-0.031
Other Certificate	-0.526	-0.544
Still Studying	-0.193	0.159
Adjusted Overseas LFX	0.048	-0.005
(Quadratic Term*100)	-0.040	0.184
Adjusted Australian LFX	-0.062	-0.058
(Quadratic Term*100)	0.074	0.160
Married	-0.989	-0.931
Foreign Qualification	0.056	0.286
Australian Citizen	-0.265	-0.136
Speaks Poor English	0.361	0.637
Born in Asia	-0.245	-0.202
Constant	0.027	0.797
-2 * ln LR (a)	19,800.52	10,528.15
-2 * ln LR (b)	18,702.82	9,879.57
Model Chi-Square	1,097.70	648.58
DFs	19	19
Proxy R-squared	.053	.058
Number of Cases	39,008	19,636

Note: Before forming quadratic terms for overseas schooling and experience, for computational reasons we subtracted a constant of five years. For the Australian variables, we subtracted a constant of ten. See Mosteller and Tukey (1977: 284-7). The first likelihood ratio LR(a), is for the null model with the constant term only. LR (b) relates to the current model.

Table 9. Measures of Effect from a Logistic Regression of Unemployment among Immigrants of Italian Ancestry

Characteristic	Parameter Estimates	
	Men	*Women*
Years of Overseas Schooling	-0.055	-0.086
(Quadratic Term*100)	0.994	1.002
Years of Australian Schooling	-0.139	-0.184
(Quadratic Term*100)	-1.126	-0.728
Postgraduate	-1.502	-0.863
Degree	-0.911	-0.955
Diploma	-0.611	-0.702
Trade Certificate	-0.346	-0.433
Other Certificate	-0.454	-0.289
Still Studying	-0.198	0.194
Adjusted Overseas LFX	0.022	-0.035
(Quadratic Term*100)	0.023	0.380
Adjusted Australian LFX	-0.031	-0.088
(Quadratic Term*100)	0.123	0.122
Married	-1.053	-0.832
Foreign Qualification	0.246	0.180
Australian Citizen	-0.168	-0.154
Speaks Poor English	0.243	0.214
Born in Latin America	0.611	0.501
Born in Egypt	0.471	0.321
Constant	-0.280	0.357
-2 * ln LR (a)	40,519.72	18,983.35
-2 * ln LR (b)	38,556.85	17,852.86
Model Chi-Square	1,962.88	1,130.48
DFs	20	20
Proxy R-squared	.048	.058
Number of Cases	94,717	42,186

Note: Before forming quadratic terms for overseas schooling and experience, for computational reasons we subtracted a constant of five years. For the Australian variables, we subtracted a constant of ten. See Mosteller and Tukey (1977: 284-7). The first likelihood ratio, LR(a), is for the null model with the constant term only. LR (b) relates to the current model.

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Table 10. Measures of Effect from a Logistic Regressopm of Unemployment among Immigrants of Chinese Ancestry.

Characteristic	Parameter Estimates	
	Men	Women
Years of Overseas Schooling	0.014	-0.043
(Quadratic Term*100)	-0.033	0.229
Years of Australian Schooling	0.003	-0.043
(Quadratic Term*100)	-0.518	0.025
Postgraduate	-1.103	-1.099
Degree	-1.009	-0.929
Diploma	-0.696	-0.356
Trade Certificate	-0.433	-0.222
Other Certificate	-0.663	-0.787
Still Studying	0.449	0.470
Adjusted Overseas LFX	0.006	-0.006
(Quadratic Term*100)	0.190	0.451
Adjusted Australian LFX	-0.076	-0.064
(Quadratic Term*100)	0.453	1.489
Married	-0.286	0.141
Foreign Qualification	0.410	0.237
Australian Citizen	-0.280	-0.186
Speaks Poor English	0.676	0.817
Born in China	-0.425	-0.636
Born in Hong Kong	-0.705	-0.577
Born in Malaysia	-0.224	-0.579
Born in Vietnam	0.476	0.387
Constant	-1.446	-2.002
-2 * ln LR (b)	24,431.36	20,883.32
Model Chi-Square	5,335.44	4,594.64
DFs	22	22
Proxy R-squared	.178	.179
Number of Cases	38,513	30,099

Note: Before forming quadratic terms for overseas schooling and experience, for computational reasons we subtracted a constant of five years. For the Australian variables, we subtracted a constant of ten. See Mosteller and Tukey (1977: 284-7). The first likelihood ratio, LR(a), is for the null model with the constant term only. LR (b) relates to the current model.

Among the Dutch, schooling, especially if obtained before migration, has weaker effects on the risk of unemployment. Evaluated at 8 per cent, an additional year of overseas schooling for Anglo-Celtic men (a linear component of -0.236 plus the curvilinear effect of 0.0074) reduces their predicted unemployment by one and a half points, to 6.5 per cent. The comparable reduction among the Dutch is about half that. Post-school qualifications have salutary effects in both groups. But overseas labour force experience seems to impede the labour market adjustment of immigrant Dutch men, suggesting that those already embarked on pre-migration careers had greater difficulty in adapting to a new environment. This pattern is not evident among women, possibly because women experiencing hardship in adjusting to the Australian labour market can withdraw from it completely. That option is less viable for many men.

Only a handful of Dutch immigrants speak poor English. But the few that do have worse unemployment prospects. Evaluated at the average rate of 8 per cent unemployment, a Dutch man with poor English is 3.1 percentage points more likely to be unemployed. The penalty for Dutch women is even higher, at 6.1 percentage points more. Qualifications provide good insurance against unemployment, but the level of insurance provided is reduced if the qualification is 'foreign'. This difference holds true even for Anglo-Celts, among whom local recognition is a problem only for the minority educated in countries other than Great Britain and Ireland. However, the reduction is not so large as to wipe out the benefit entirely, except for the small percentage of Dutch women with a trade certificate. The Anglo-Celtic pattern in which undertaking a current course of study assists men, but not women, to avoid unemployment does not hold for the Dutch.

The Dutch analysis distinguishes persons born in Asian countries, mainly former colonies, on the grounds that they might fare worse

than immigrants coming directly from Europe. So far as unemployment is concerned, the opposite is true: they are less likely to be unemployed. This advantage probably arises from the fact that most arrived in the 1950s, so they and even their children entered the labour market in relatively good economic times. Their risk of current unemployment is quite low.

We see an opposite tendency among Italians from Latin America and Egypt. They consist mainly of more recent arrivals, so their predicted rate of unemployment is relatively high. Evaluated at the general unemployment level, men of Italian ancestry born in Latin America have an expected unemployment rate 5.8 percentage points higher. The penalty for women is 4.6 percentage points. The comparable figures for Egyptian-born persons of Italian ancestry are 4.2 and 2.7 points respectively. Other factors that increase their risk of unemployment are poor English ability (one in seven men and one in six women), and foreign qualifications. Women who (may have) worked before migration tend to do better; those currently studying do worse. The opposite is true of men. All other factors, including being married, reduce the risk of unemployment. But we would not recommend marriage as an escape route from unemployment. As already indicated, the causal mechanism is complex and indirect. People may defer marriage until they have a secure job. Or they may take jobs that single persons reject, to meet their family responsibilities. For the same reason, they may stay in jobs they do not really like. The only direct causal link is the possibility that employers may sack unmarried workers first.

In comparing the effects of human capital and other characteristics across ancestry groups, it is important to bear in mind that each analysis contrasts unemployment experiences within each group. That is to say, the estimates in Table 9 show how Italians with certain characteristics fare relative to other Italians with different attributes. The relatively weak effects of schooling simply show that

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differences in schooling do not provide much help in explaining why one Italian is more likely to be unemployed than his compatriots. On the other, such differences do explain more of the relative differences in unemployment experience among Anglo-Celts. Among them, each additional year of schooling plays a larger role in accounting for who is, and who is not, likely to be unemployed.

It is of course possible to compare parameter estimates of effect directly across tables in order to judge the relative impact of each variable. But it is less easy to judge whether members of different groups with similar bundles of characteristics experience more, or less, unemployment. The main reason for this difficult is two-fold. First, in a logistic regression the practical impact of each effect depends partly on the effects of other variables. As the probability of unemployment approaches zero, effects become attenuated. Second, the constant term in each equation varies widely, from moderate positive quantities among Anglo-Celts to moderate negative quantities among the Chinese. So each effect relates to different base levels of unemployment depending on which ancestry group and sex group is involved.

Figures 4 and 5, and Table 11, obviate these difficulties by comparing predicted unemployment for workers with the same endowments of human capital. Figure 4 evaluates the effects of adjusted Australian labour force experience for unmarried men with ten years of overseas schooling, no post-school qualifications and no overseas labour force experience. In other words, the graph represents the expected unemployment experienced by men who left school in their country of origin and migrated to Australia. The analysis further assumes that none has yet become an Australian citizen or is undertaking a course of study in Australia. Among the Dutch, Italians and Chinese, the point of reference is a person born in a country not specifically identified in the tables.

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The graphs show, perhaps surprisingly, that the highest levels of unemployment are experienced by the Anglo-Celts. The Chinese experience high initial rates of unemployment but after five years they approximate the rates among the Dutch, the group with the lowest predicted rate of unemployment in the first five years of settlement. Italians are intermediate, with lower unemployment than Anglo-Celts but higher rates than the Dutch. The general shape of the decline over time is almost identical among all three European ancestries.

Among women, initial rates of unemployment are much higher, at 25 per cent or more in every group compared with figures of 15 to 22 per cent among men. But the decline is steeper, especially among Chinese women. After five years, their expected rate of unemployment is down 22 percentage points from 32 to 10 per cent, the same as for men. The Anglo-Celtic rates converge after five years as well, but at a higher level. Anglo-Celtic women have an expected rate of unemployment of 20.4 per cent, compared with the male rate of 19.8 per cent. There is, however, a sizable 'gender gap' among Dutch and Italians. Dutch women experience double the male rate after five years in Australia (21.4 versus 10.8%). The comparable figures for Italians are 21.5 and 13.9 per cent.

Women tend to experience higher unemployment than men for several reasons. First, in any cross-sectional analysis more women than men will tend to be re-entrants to the labour force and so face the same difficulties as recent school-leavers in finding work. Women also tend to be less mobile geographically, and where they live may reflect male rather than female job requirements. Their concentration in a narrow range of jobs means also that they face greater competition from the pool of other women seeking to enter or re-enter the job market. They are also more likely to be affected by redundancy because '...the ideology that they can return to the home is powerful' (Chesterman and Cox, 1984: 96).

FIGURE 4. PREDICTED UNEMPLOYMENT OF IMMIGRANT MEN OF ANGLO-CELTIC, DUTCH, ITALIAN AND CHINESE ANCESTRY(a)
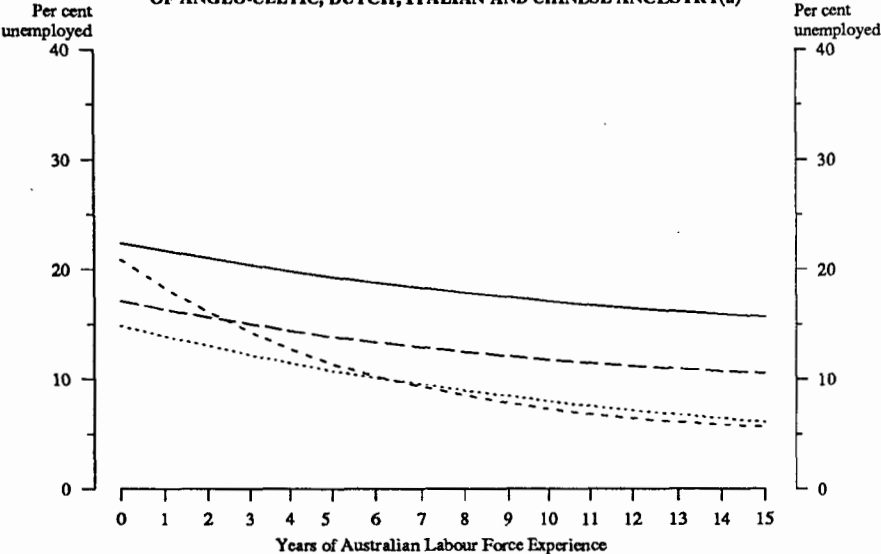
Per cent unemployed

Years of Australian Labour Force Experience

(a) Effects are evaluated for unmarried wage earners with 10 years of overseas schooling, no post-school qualification, and no overseas work experience.

———— Anglo-Celts

·········· Dutch

— — — Italians

- - - - - Chinese

FIGURE 5. PREDICTED UNEMPLOYMENT OF IMMIGRANT WOMEN OF ANGLO-CELTIC, DUTCH, ITALIAN AND CHINESE ANCESTRY(a)
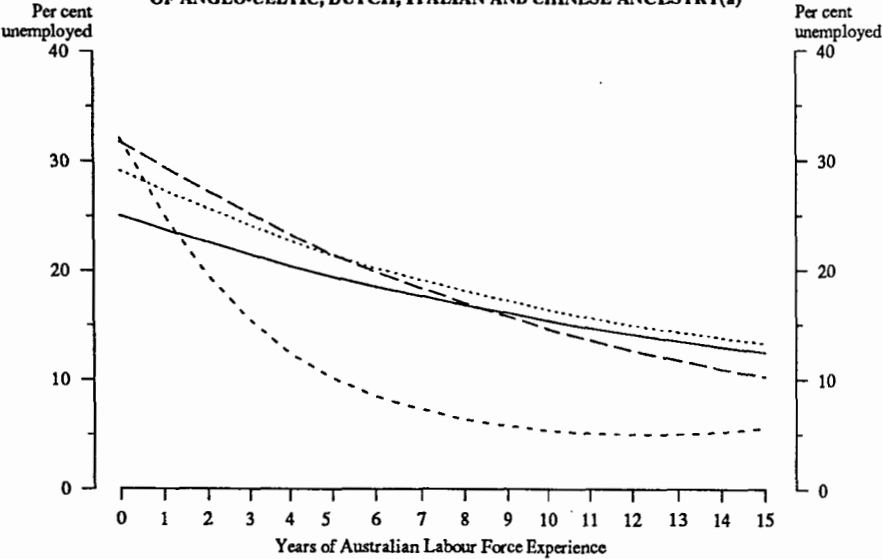
Per cent unemployed

Years of Australian Labour Force Experience

(a) Effects are evaluated for unmarried wage earners with 10 years of overseas schooling, no post-school qualification, and no overseas work experience.

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As far as ancestry differences are concerned, Figures 4 and 5 are not as consistent with explicit discrimination against immigrants from non-English-speaking backgrounds. In fact, Anglo-Celtic men experience higher rates of unemployment during the first fifteen years of settlement, with rates comparable to those for third-generation Anglo-Celts (Jones, 1991: 34). Both native-born and immigrant Anglo-Celts seem more tolerant of unemployment as an option to settling for an inferior job than do the members of other immigrant groups. A recent study of teenage unemployment also reports relatively high rates of unemployment among persons with Australian-born parents (Trewin et al., 1989: 44). Migrants, especially those from non-English-speaking countries, may settle for marginal work in preference to unemployment.

On the other hand, some immigrant groups do experience very high rates of aggregate unemployment (Harrison, 1984). The main reason is that they consist predominantly of recent arrivals going through the difficult task of adjusting to a new, and depressed, labour market. They tend to be less knowledgeable about local conditions than older arrivals (Miller, 1986); they may not speak English well; and if they belong to a new group like the Vietnamese-Chinese, they have fewer compatriots on whom they can rely for help.

When we compare like with like, as in Table 11, we can see that local experience, schooling and qualifications reduce expected unemployment in all groups. The effects are generally stronger for men than for women, and for the members of ethnic minorities than for Anglo-Celts, immigrant or native-born. Leaving school before 15 (eight years of schooling) implies a high risk of unemployment for an Anglo-Celt. For other immigrants, it is less of a disadvantage. They are prepared to take jobs rejected by members of the majority ancestry.

Unemployment among the Chinese generally is not high compared with the Dutch or Italians. But it is higher among those from Vietnam, many of whom are refugees ill-prepared for emigration. Chinese with poor English skills fare even worse. After one year in Australia, their predicted rates of unemployment are 41.5 per cent for men, and 52.7 per cent for women. The Chinese are also distinctive in that differences in their years of schooling have almost no effect on the risk of unemployment, a finding that pertains even to schooling obtained after migration (see Table 10 above). There is virtually no difference in the expected rate of unemployment among persons with 8, 10, or 12 years of schooling.

The high school-leaving ages reported in the Australian census by Chinese immigrants reflects several factors, from war and civil unrest in southeast Asia, the Cultural Revolution in the Peoples' Republic of China, to compensatory schooling after emigration. Some Australian schooling may have been undertaken to validate overseas credentials, or to obtain Australian school certificates that would facilitate entry to local universities. In the first case, the usual assumption that schooling was more or less continuous from the age of six until the age at which a person left school is false. In the second case, the effect of schooling is diluted because some years of schooling were repeated. To pursue these issues further would require educational histories of a kind not available from the census. All we can do here is note that Australian employers tend to treat differences in schooling among immigrant Chinese as irrelevant to their hiring decisions. Post-school qualifications are, however, taken seriously.

The graphs in Figures 4 and 5, together with the estimates in Tables 8 through 11, do not suggest that immigrants from non-Anglo-Celtic backgrounds, other than refugees and poor speakers of English, have markedly worse chances of finding employment in the Australian labour market, once account is taken

of the human capital they acquired before and after migration. It is, however, possible that they become segregated in low status and poorly rewarded jobs inconsistent with their education, training, and experience, issues to which we now turn.

Table 11. Effects of Schooling, Qualifications and Australian Labour Force Experience on Predicted Unemployment among Immigrants of Anglo-Celtic, Dutch, Italian and Chinese Ancestry

| | Years of Schooling and Qualification | | | | | | | | | |
| | With One Year's LFX | | | | | With Five Years' LFX | | | | |
Ancestry Group	8	10	12	Trade	Deg.	8	10	12	Trade	Deg.
Immigrant Men:										
Anglo-Celts	28.3	21.7	17.1	16.5	9.3	25.4	19.3	15.1	14.6	8.1
Dutch	15.2	13.9	13.3	11.7	5.7	11.8	10.8	10.3	9.1	4.3
Italians	15.7	16.3	18.2	15.0	10.3	13.3	13.9	15.5	12.7	8.7
Chinese, Other	18.0	18.3	18.6	18.0	11.2	11.2	11.4	11.6	10.9	6.8
Chinese (Vietnam)	26.1	26.5	26.9	26.1	16.9	16.8	17.1	17.4	16.8	10.3
3rd Gen. Anglo-Celts	33.2	21.2	13.6	12.2	4.5	29.9	18.4	11.7	10.4	3.8
Immigrant Women:										
Anglo-Celts	30.3	23.8	19.2	17.0	10.9	25.2	19.6	15.7	13.8	8.8
Dutch	30.3	27.3	25.6	22.5	15.2	23.9	21.4	19.9	17.4	10.4
Italians	29.7	29.4	30.9	27.2	17.1	21.7	21.5	22.7	19.7	11.9
Chinese, Other	26.0	25.1	24.5	16.2	14.0	10.6	10.1	9.8	6.1	5.1
Chinese (Vietnam)	34.1	33.0	32.3	21.7	19.3	14.8	14.2	13.8	8.7	7.5
3rd Gen. Anglo-Celts	31.5	19.3	12.8	11.3	5.5	26.2	16.7	11.0	9.7	4.7

Note: Effects are evaluated for unmarried persons with no overseas labour force experience. Persons with a trade qualification ('Other' for women) are assumed to have ten years of schooling, and those with a degree twelve years. For immigrants, the effects of overseas schooling and foreign qualifications are used, with Australian schooling set to zero.

7. Occupational Attainment

We now consider how ethnicity and sex affect processes of occupational attainment. These analyses exclude the unemployed: they had no job at census time, and the census provides no information on previous jobs. The dependent variable is the ANU3 status scale, which synthesises popular judgments about the social standing of different jobs with the socioeconomic and demographic characteristics of workers in them. Details of its construction are available elsewhere (Jones, 1989b). It reflects aggregate differences in occupational power, privilege and prestige, and is calibrated so that high scores (to a maximum of 100, medical specialists) represent high socioeconomic status (SES), and low scores signify low SES (to a minimum of zero, door attendants). The public opinions on which the ANU3 scale is based come from surveys conducted in the 1970s, so there is a time-lag between the opinions and the census data that were used to produce the status scale. However, research has shown that these scales are very stable over time and between countries. Treiman (1977: 74) cites correlations of 0.94 to 0.98 for average ratings of twenty or more job titles in the United States, the Netherlands and Japan over periods ranging from ten to almost forty years. Similarly, the ANU3 scale bears a close family resemblance to its predecessors, despite differences in the detail of its construction. For the Australian labour force as a whole, it has a mean of 34.8 and a standard deviation of 23.4. The range of variation in sub-sets of the labour force such as those in the present analysis is more restricted (see Tables 3 to 6 above). Examples of jobs with middling status are men in the electrical trades and

women in office work. Managers and professionals have higher than average status, while semiskilled and unskilled workers have lower status. The scale has a long 'tail' above the mean, like income and wealth distributions.

The tables that follow distinguish employers, independent workers, wage and salary earners, and unpaid helpers. In the regression analyses, this small group of helpers is the implied comparison group, so that coefficients show how much better, or worse, other workers fare in the process of attainment. The range of relevant variables available for persons in employment is broader than it is for the unemployed. In addition to schooling, qualifications, and experience, we can distinguish different grades of workers (employers, the self-employed, workers on wages and salary, and unpaid helpers), government workers, and persons who work from home. We might expect unpaid helpers to have fairly low status; employers and self-employed workers to have higher status than wage and salary earners; and government employees to have fairly high status because they work more in white-collar than blue-collar jobs. We might also expect people working from home to have rather low status. Regression coefficients with positive signs tend to increase the average status of a worker's job; negative coefficients decrease it.

The descriptive information in Tables 3 to 6 above suggest that some of these initial expectations may be wrong. For example, Italian men have the lowest proportion on wages or salary (72% compared with 85% among immigrant Anglo-Celtic men), and the highest proportion working as employers or in self-employment (28%). Yet they have quite low average SES. The reason is that they are heavily concentrated in blue-collar work, as Figures 6 and 7 show. Most Italian men find work in the skilled trades, or as operatives and labourers (69%, compared with 48% among the Dutch and Anglo-Celts, and only 30% among the Chinese). Table 12

gives more detail by listing the 'top ten' sources of employment in each group, together with a summary measure of dissimilarity from the Anglo-Celtic majority.

Anglo-Celtic men are more heavily concentrated in managerial work than men from other ancestries. Yet in Figure 6 above Italian men appear to match, and the Dutch to exceed, the Anglo-Celtic proportion in administrative work. The reason for this apparent discrepancy is that farming is an important source of employment for Dutch and Italian men, and the Australian Standard Classification of Occupations (ASCO) includes farmers and farm managers in the administrative major group. Generally, there is a high degree of overlap in the jobs that Anglo-Celts and Dutch enter, with six jobs appearing in both lists. Up to a quarter found employment in the 'top ten' jobs, a notable level of concentration, yet lower than that among the Italians and, especially, the Chinese. Whereas Italians tend to congregate in factory and construction work, the Chinese show a bipolar pattern, with significant representation in both the professions and also services and factory work. Two out of five Chinese men worked in one or another of these top ten jobs, often, no doubt, for Chinese employers. They show not only the highest degree of occupational concentration, but they also have the highest degree of segregation from Anglo-Celts.

Women show even higher degrees of occupational concentration, regardless of ancestry. Around half work in the top ten jobs, which show little overlap with men's most frequent lines of work. The lists for Anglo-Celts share only two common titles (sales assistant and accounting clerk); the Dutch share three titles (sales assistant, shop manager, and farm manager); the Italians four (farm manager, sales assistant, cleaner, and factory hand); and Chinese four as well (factory hand, kitchenhand, accountant, and waiter/waitress). The sorts of jobs held by minority women are less like those of men from the same ancestry than those held by women from the

Table 12. 'Top Ten' Jobs Held by Immigrant Workers from Different Ancestry Groups

	Ancestry Group, Sex and Job Title		
Anglo-Celtic	Dutch	Italian	Chinese
Men:			
Metal Fitter	Man. Supervisor	Farm Manager	Cook
Sales Assistant	Carpenter	Concrete Worker	Factory Hand
Truck Driver	Farm Manager	Sales Assistant	Kitchenhand
Carpenter	Truck Driver	Truck Driver	Accountant
Sales Representitives	Metal Fitter	Cleaner	Medical Doctor
Storeman	Sales Assistant	Man. Supervisor	Computing Professor
Man. Supervisor	Painter	Boilermaker	Waiter
Accounting Clerk	Shop Manager	Carpenter	Plant Operator
Mechanic	Mechanic	Plant Operator	Assembler
Sales Manager	Boilermaker	Factory Hand	Restaurant Manager
(22.2 per cent)	(26.6 per cent)	(31.6 per cent)	(43.7 per cent)
Distance from Anglo-Celts:			
na	12.7 per cent	33.2 per cent	47.6 per cent
Women:			
Accounting Clerk	Accounting Clerk	Textile Machinist	Nurse
Stenographer	Sales Assistant	Cleaner	Textile Machinist
Sales Assistant	Stenographer	Sales Assistant	Waitress
Nurse	Nurse	Stenographer	Stenographer
Receptionist	Cleaner	Farm Manager	Factory Hand
Cleaner	Clerk	Accounting Clerk	Kitchenhand
Clerk	Farm Manager	Kitchenhand	Accounting Clerk
Data Processing	Receptionist	Factory Hand	Sales Assistant
Typist	Shop Manager	Clerk	Hand Packer
Kitchenhand	Kitchenhand	Receptionist	Accountant
(45.5 per cent)	(47.4 per cent)	(55.3 per cent)	(50.8 per cent)
Distance from Anglo-Celts:			
na	10.6 per cent	37.2 per cent	37.0 per cent
Distance from Men of Same Ancestry:			
61.5 per cent	60.2 per cent	59.9 per cent	47.4 per cent

Note: Jobs are listed in order of importance. Percentages in brackets show the percentage from each group working in one of the top ten sources of employment. The 'distance' from Anglo-Celts is the Index of Dissimilarity (ID) for the full range of occupations (334 titles in all) for each group. It shows how many in each group would need to shift occupations to mirror the Anglo-Celtic distribution. It ranges from 0 (complete similarity) to 100 per cent (complete dissimilarity). The last line of the table shows the ID between women and men of the same ancestry.

dominant Anglo-Celtic ancestry (the Indices of Dissimilarity in the last row of Table 12 are much larger than those in the second last row). Women, whatever their ancestry, show a high degree of occupational segregation from men. But Italian and Chinese women and men alike are also highly segregated from the dominant ancestry group, Anglo-Celts.

Given the nature of the ANU3 status scale, it is scarcely surprising that the coefficients in Tables 13 through 16 show that post-school qualifications tend to increase job status, as do years of schooling and experience. However, the (generally) negative quadratic terms mean that returns taper off as years of schooling and labour force experience increase. Schooling and credentials obviously dominate the process of status attainment. Figures 8 and 9 graph the effects of overseas schooling, for unqualified, unmarried, and unpaid helpers with five years of Australian labour force experience. The other characteristics in each table are set to zero. That is to say, the reference person for purposes of estimation is not at present studying, has no overseas experience, does not work for government, does not work from home, and is not an Australian citizen. In developing a general interpretation of the results, we first explore sex differences in the process of occupational attainment among immigrant Anglo-Celts. The basic findings are in Table 13.

Figures 2 and 3 above show that Anglo-Celtic immigrants rarely left school before they were twelve years old. The few that did could expect to get a job in Australia with very low status, around four points of SES for men and fifteen for women, jobs like cleaners and housekeepers. Persons with average schooling (about ten years) could expect to hold down a job with around 20 to 25 status points, jobs like security officers, plant operators, chemical factory workers, and other semiskilled work. Persons who completed the Higher School Certificate (twelve or more years of formal schooling) could expect to have jobs with around 30 status points, jobs like

Table 13. Regression Coefficients from an Ordinary Least Squares (OLS) Analysis of Socioeconomic Status among Immigrants of Anglo-Celtic Ancestry (1986 Census of, Australia)

Characteristic	Men		Women	
	Reg. Coeff.	Std. Err.	Reg. Coeff.	Std. Err.
Years of Overseas Schooling	3.53	0.07	2.60	0.07
(Quadratic Term*100)	1.31	0.63	0.92	0.70
Years of Australian Schooling	3.04	0.09	2.20	0.10
(Quadratic Term*100)	-5.52	0.69	-4.61	0.75
Postgraduate	35.56	0.35	31.20	0.45
Degree	30.23	0.25	26.06	0.30
Diploma	22.06	0.29	20.51	0.29
Trade Certificate	1.79	0.16	1.25	0.41
Other Certificate	11.83	0.22	9.84	0.19
Still Studying	2.81	0.26	1.09	0.26
Adjusted Overseas LFX	0.25	0.02	0.17	0.03
(Quadratic Term*100)	-0.49	0.09	-1.16	0.29
Adjusted Australian LFX	0.25	0.01	0.27	0.01
(Quadratic Term*100)	-0.22	0.01	-0.87	0.20
Employer	8.97	1.54	5.46	0.65
Self-employed	2.11	1.53	2.14	0.61
Wage and Salary Earner	3.37	1.53	-1.73	0.58
Government Employee	0.98	0.14	3.40	0.15
Works from Home	5.32	0.39	1.58	0.30
Married	3.69	0.14	-1.13	0.14
Foreign Qualification	-0.18	0.20	-0.09	0.25
Australian Citizen	1.13	0.12	0.52	0.13
Constant	-13.56	1.74	3.20	1.10
Total Number of Cases	81,256		50,995	
Adjusted R-squared	.399		.371	

word-processing operators and salespersons. Although the relevant graphs are not shown here, access to higher management and the professions (jobs with a status of 60 points or more) generally require tertiary qualifications. The coefficients in Table 13 imply that the status trajectories for persons with diplomas and degrees lie parallel to the heavy lines in Figure 8 and 9, but at some considerable distance above (twenty to thirty status points higher). Trade certificates, on the other hand, do not directly confer much additional status, although as avenues to self-employment they confer status indirectly. Professional and administrative workers share the same route to higher status.

An interesting feature of these graphs is that Anglo-Celtic women enjoy a status advantage over men at lower school-leaving ages. Women cluster in jobs with middling status, not at either extreme of the status hierarchy. Thus, Figure 7 above shows that Anglo-Celtic women congregate in routine white-collar and sales work, not semiskilled or unskilled blue-collar work. Compared with men, women are less likely to enter the highest, or the lowest, status jobs.

Women who lack a post-school qualification do not fare badly relative to men. Indeed, they do better at low levels of schooling and in the early stages of their working lives. But any such advantage is eroded over time (the quadratic effect for Australian experience is stronger for women), and at higher levels of qualifications where status effects are somewhat larger for men. A convenient way to make a global assessment of how women fare relative to men in the process of status attainment is to decompose the average group difference into three terms. The first reflects the differences in human capital endowments (evaluated at the returns women get); the second represents the interaction between differences in endowments and returns between groups; and the third reflects differences in intercepts and returns, evaluated at the

FIGURE 6. OCCUPATIONS AMONG IMMIGRANT MEN OF ANGLO-CELTIC, DUTCH, ITALIAN AND CHINESE ANCESTRY (ASCO GROUPS)
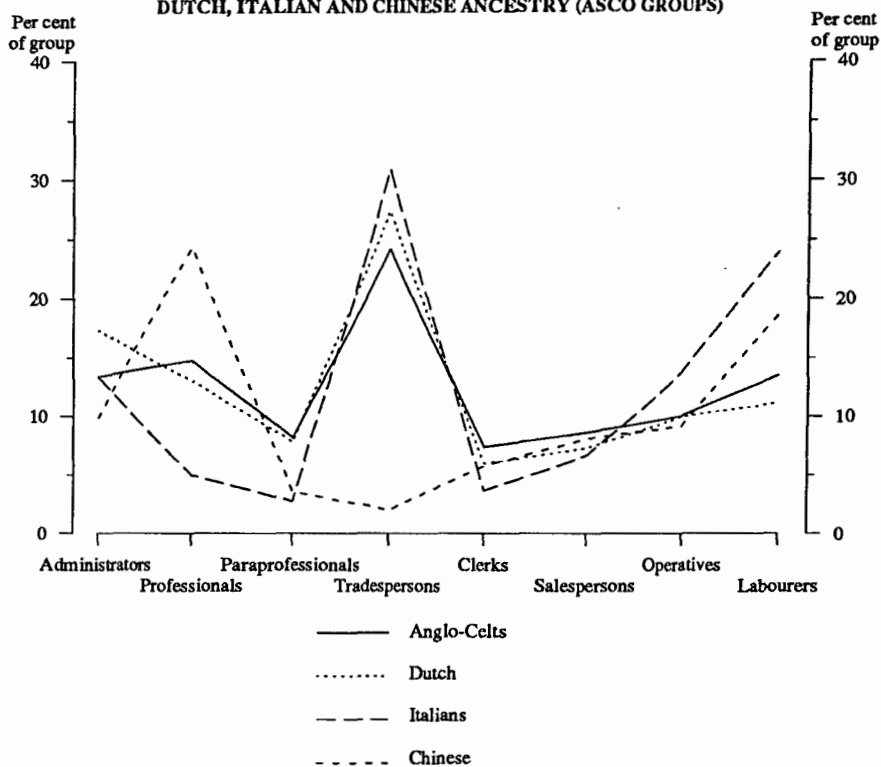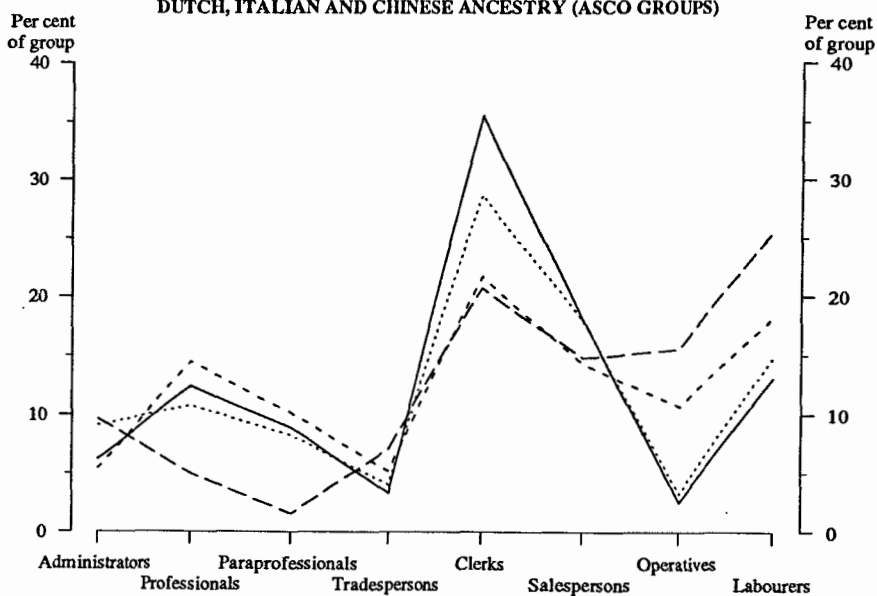

Anglo-Celts
Dutch
Italians
Chinese

FIGURE 7. OCCUPATIONS AMONG IMMIGRANT WOMEN OF ANGLO-CELTIC, DUTCH, ITALIAN AND CHINESE ANCESTRY (ASCO GROUPS)

returns the low-earning group receives. This last component is often taken to represent discrimination. Technical details are available elsewhere (Jones and Kelley, 1984). [2]

Given that Anglo-Celtic women attain an average status just 2.4 SES points below that of men (Table 3 above and Table 14 below), it is hardly surprising that this decomposition reveals little apparent discrimination against women. Differences in endowments account for 0.7 of a point of SES; almost a full point would disappear if both groups had either the same endowments or the same returns; and three-quarters of a point may be due to 'discrimination'. This residual of less than one status point is substantively trivial. It represents the excess of differences in returns over the large difference in constant terms in Table 13.

However, this near-equivalence in averages hides some differences in returns to particular characteristics. Married women have lower status jobs than unmarried women, but the opposite is true of men. Presumably, unmarried women experience fewer interruptions to their careers and so benefit more from promotions and on-the-job training (for some British evidence, see Green, 1991). The opposite tendencies obviously hold for unmarried men. Another sex difference pertains to government employment, where women have higher status jobs than their counterparts in private industry. A similar, but weaker, pattern holds among men. Women working for

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2 There is nothing sacroscant about choosing means as the point for evaluating group differences. We could make point estimates for any set of particular characteristics, a strategy we adopt at certain points. However, if we wish to make a global assessment, taking group means has the advantage that they represent the central tendencies in each group. Note that when we compare women with men from a given ancestry, we use the full set of estimates from the each regression. When we compare a minority ancestry with Anglo-Celts, we set variables not relevant to the latter group to zero. A final observation is that evaluating group differences at the mean does not necessarily yield the same impression as evaluating other combinations of individual characteristics. Other subsets relate differently to the central tendencies in each group.

government are more likely to tend to be in white-collar jobs, whereas men also work in lower status blue-collar jobs as well (for example, in construction and public utilities). Contrary to initial expectations, homeworkers have marginally higher status, especially men. So people who work from home are not especially likely to work in low status jobs. Indeed, many self-employed professionals work from home (Walker, 1987). Women also get somewhat lower returns to their schooling, qualifications, and overseas experience. But the differences are not dramatic.

Finding that there is little sex difference in average status outcomes among immigrant Anglo-Celts in Australia is consistent with results from the United States. In both countries, the net effect of sex on the prestige of occupations is slight. Women have similar job prestige to men, and they achieve it through equivalent processes. The American evidence for these generalisations can be found in Treiman and Terrell (1975), and also in England (1979).

This conjunction of near-equality in occupational status with great disparity in occupational earnings is puzzling. It led England to the conclusion that status equality is vacuous. It is worth quoting her at length:

> When interest focuses solely on occupational prestige, one finds a surprising lack of discrimination against women. On their face, these findings contradict notions of extreme sexism in the operating of the labor market. Yet the analysis has also suggested this sex equality of prestige to be rather vacuous. Although women have a very similar prestige distribution to that of men, women's incomes are vastly lower than men's, and they seldom have the power to supervise or otherwise control a man's work. Sex equality of prestige is surprising in the light of women's lesser income and power because, in general, there is a correlation between the prestige, income, and interpersonal power associated with an occupation (England, 1979: 264).

Except for relative earnings, an area in which Australian women made major gains in the 1970s, England's comments apply with equal force to the Australian scene. They draw attention to a simple but sometimes neglected fact. In any complex economy, jobs with the same name differ in at least one important respect. Workers in them will have different levels of seniority, and so different levels of responsibility and pay. Even a detailed coding scheme like the ASCO census classification, which distinguishes 282 detailed occupational clusters classified into 52 sub-groupings, ignores such within-job differences. While ASCO distinguishes jobs requiring marked differences in skill, it does not distinguish seniority or responsibility levels within jobs requiring the same general skills.

An example from the higher education industry illustrates the point. In 1990, the Faculties at the Australian National University employed 370.4 academic staff (including fractional appointees) of the rank of tutor and above. These staff held jobs ranging from entry level (tutors and fixed-term lecturers) to career peaks (readers and professors). The responsibilities of staff at each level varied, as did their pay. A person at the peak of the academic hierarchy received a salary almost three times that of a person at the bottom. Women, however, were heavily concentrated in the lower ranks. They constituted 20.5 per cent of the total academic staff, but 34.6 per cent of tutors and lecturers and only 10.5 per cent of readers and professors. Even in a detailed classification like ASCO, every single one of these academics is coded to a single occupational category (2501, University and CAE teachers). So the ANU3 scale assigns them the same occupational prestige. This status equality is reasonable in light of the fact that jobs from tutor to professor form a recognised career structure. People who start out at the bottom can ultimately reach the status of a professor. However, what they earn depends not on their common status but on their place in the academic hierarchy.

Women would enjoy equal status and equal earnings with men only if they had achieved comparable levels of seniority and authority in the 'same' jobs. ASCO, however, provides no direct information on seniority. The situation in higher education is not unique but typical of many industries, so data on relative earnings provide just one window through which we can see just how vacuous, in economic terms, equality in occupational status can be.

Table 14. Decomposition of Group Differences in Average Socioeconomic Status among Immigrants of Anglo-Celtic, Dutch, Italian, and Chinese Ancestry

| | Component of Difference Due to: | | | |
Groups Compared	Returns	Endowments	Interaction	Total 'Gap'
Men versus Women:				
Anglo-Celts	0.75	0.68	0.96	2.39
Dutch	2.28	-0.77	1.26	2.77
Italian	1.88	3.51	-3.52	1.87
Chinese	2.18	2.73	0.46	5.37
Anglo-Celts versus:				
Dutch Men	2.89	-1.50	-1.14	0.25
Italian Men	3.52	3.44	2.08	9.04
Chinese Men	8.72	-1.51	-7.86	-0.65
Dutch Women	1.64	-0.90	-0.11	0.63
Italian Women	2.80	3.14	2.58	8.52
Chinese Women	7.04	1.72	-6.43	2.33

Note: For definition of terms, see Jones and Kelley, 1984: 331.

We turn now to see how far this sex equality holds for other ancestries, and to see if the members of these other groups fare as well as Anglo-Celts, given their different endowments of human capital. Tables 15, 16 and 17, together with Figures 8 and 9, provide the relevant results. According to Table 4 above, the Dutch achieve much the same average status as immigrant Anglo-Celts. They also get similar returns to post-school qualifications. But among the Dutch years of schooling do not differentiate status outcomes as sharply. For example, the average difference in job status for a Dutch man who left school at fourteen rather than at eighteen is

FIGURE 8. EFFECTS OF OVERSEAS SCHOOLING ON THE SOCIOECONOMIC STATUS (SES) OF IMMIGRANT MEN OF ANGLO-CELTIC, DUTCH, ITALIAN AND CHINESE ANCESTRY(a)
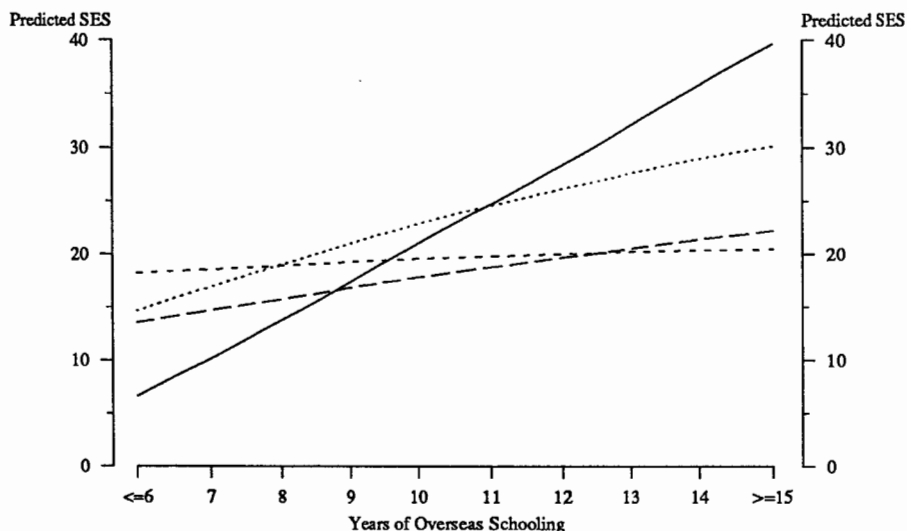
(a) Effects are evaluated for unmarried wage and salary earners with no Australian schooling, no post-school qualification, and 5 years Australian labour force experience.

Legend:
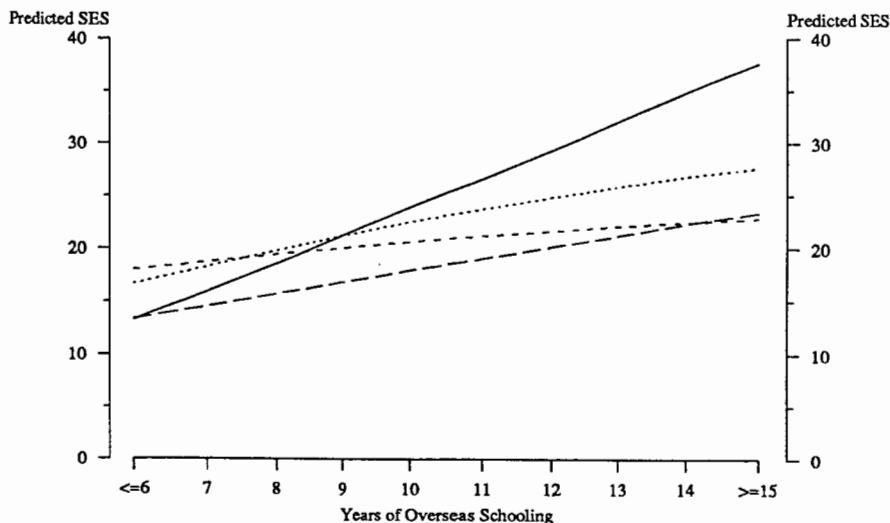- Anglo-Celts
- Dutch
- Italians
- Chinese

FIGURE 9. EFFECTS OF OVERSEAS SCHOOLING ON THE SOCIOECONOMIC STATUS (SES) OF IMMIGRANT WOMEN OF ANGLO-CELTIC, DUTCH, ITALIAN AND CHINESE ANCESTRY(a)

(a) Effects are evaluated for unmarried wage and salary earners with no Australian schooling, no post-school qualification, and 5 years Australian labour force experience.

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about seven SES points, compared with fifteen among Anglo-Celts (Figure 8). There are several possible reasons for this discrepancy. Australian employers may take less notice of differences in schooling obtained in unfamiliar educational systems. So, while they may consider an Anglo-Celt, immigrant or otherwise, who left school at an early age fit only for a job requiring no special skill or responsibility, they may be more benevolent in their judgments judgments about workers from other countries. They may think, for example, that Dutch workers had fewer opportunities than Anglo-Celts. Another factor is self-employment. Minority group members can improve their status by starting their own businesses and becoming self-employed managers, or even employers. The Dutch, Italians, and Chinese all have higher proportions in self-employment than the Anglo-Celts. Self-employment is a route to higher status that does not require formal educational credentials. If achieving economic independence is unrelated to formal schooling, then the gradient in status returns to schooling will be flatter in groups with high proportions of independent workers. This hypothesis gains some support from the data. Among the Dutch, for example, there is zero correlation between years of overseas schooling and owning a business. Finally, the experience (or fear) of prejudice, chain migration, and residential concentration fosters occupational segregation by channeling immigrant workers into specialised niches in the economy. In such ethnic enclaves, differences in formal schooling are less important than help from neighbours and compatriots in finding work for newcomers (for further evidence on this process, see Campbell *et al.*, 1991). But the reader should note that, in so far as the argument about ethnic enclaves has force, enclaves tend to advantage, not disadvantage, persons with low levels of schooling. Minority group men do better than Anglo-Celts with little formal schooling, as the estimates in Figures 8 shows. There is similar differential among women, but it is less marked because more women are wage and salary earners (see Tables 3 through 6 above).

Sex differences are not prominent among the Dutch. While men get larger returns to their schooling, we need to remember that the constant terms in each equation are fourteen points apart. So the floor from which women start is higher. When we actually compare workers with equivalent endowments of human capital, as in Figures 8 and 9, we find that a Dutch woman with 10 years of overseas schooling actually has higher status than a Dutch man with the same characteristics (27 versus 21 points on the ANU3 scale). As for post-school qualifications, the returns to women and men are much the same, as are returns to Australian labour force experience. But pre-migration experience tends to reduce the status of a man's, but not a woman's, job status in Australia. In short, migration is more disruptive of the career advancement of men already at work before reaching Australia than is the case for women. Women not only experience less career advancement anyway, but those who found the greatest difficulty in transferring to the Australian labour market may drop out completely. So they do not even appear in this analysis. Other differences worth noting are that Dutch employers enjoy a status advantage, as do men working from home. But working for the government benefits women more than men, a pattern common to all four ancestry groups, for reasons already mentioned.

Among the Dutch, differences in endowments do not help much in accounting for the 'gender gap' of 2.8 points in average SES. Evaluating them at the prevailing female returns would actually widen, not narrow, the gap by almost one point (Table 15), because Dutch women have marginally superior endowments. However, this 'cost' is more than offset by the interaction between differences in human capital and returns (1.3 points). But the upshot is that most (82%) of the observed gap in status between men and women is not explained by differences in endowments and may therefore reflect 'discrimination'.

Comparing ancestry groups, we find that Dutch and Anglo-Celtic men have almost exactly the same average status (just over 34 points). But the Dutch would gain another three SES points if they were treated like Anglo-Celts. In this case, an equal outcome does not imply equal treatment. Dutch men would do better if they received the same returns to their endowments as Anglo-Celts. In fact, they achieve a similar outcome only because they get lower returns to their (superior) schooling and experience. The same is true of Dutch women. Despite the fact that their average status is almost the same as for Anglo-Celtic women, they also would do better (by 1.6 SES points) if the market treated their endowments the same as those of the majority ancestry.

The minor disadvantages experienced by the Dutch are magnified among the Italians (Table 16), who get even lower returns to their schooling and experience. But they achieve lower average status not so much because they are treated worse but because they have inferior endowments of human capital. For example, being a poor English speaker elicits a similar status penalty for both Dutch and Italian workers. But many more Italian than Dutch workers speak poor English: about 150 per thousand Italians, compared with only 5 per thousand among the Dutch. Similarly, having a degree or a diploma brings about similar advantages in both groups. But many fewer Italians have that kind of post-school qualification. Whether a qualification was obtained before or after migration appears to have little net impact on job status. In fact, among Italians an overseas qualification confers a modest advantage. But among Anglo-Celts the effect is not significantly different from zero; Dutch women suffer some disadvantage, as do Chinese women. There is no consistent pattern to these effects.

We can illustrate the impact of Italians' poorer endowments of human capital by comparing them to Anglo-Celts. For both women and men, there is a large ethnic gap in average status, 9.04 points

Table 15. Regression Coefficients from an Ordinary Least Squares (OLS) Analysis of Socioeconomic Status (SES) among Immigrants of Dutch Ancestry (1986 Census of Australia)

Characteristic	Regression Coefficients	
	Men	Women
Years of Overseas Schooling	2.46	1.76
(Quadratic Term*100)	-6.66	-4.92
Years of Australian Schooling	2.52	1.92
(Quadratic Term*100)	0.32	-0.02
Postgraduate	35.15	32.14
Degree	29.72	27.05
Diploma	21.67	20.28
Trade Certificate	0.20	1.10
Other Certificate	10.62	9.82
Still Studying	3.46	2.09
Adjusted Overseas LFX	-0.08	0.07
(Quadratic Term*100)	0.66	-1.36
Adjusted Australian LFX	0.14	0.16
(Quadratic Term*100)	-0.32	-1.25
Employer	6.25	2.33
Self-employed	0.57	-0.05
Wage & Salary Earner	2.11	-4.58
Government Employee	0.17	3.92
Works from Home	8.40	3.54
Married	3.43	-0.75
Foreign Qualification	0.44	-1.71
Australian Citizen	0.89	-0.02
Speaks Poor English	-2.98	-2.24
Born in Asia	-0.41	0.01
Constant	-3.23	10.65
Total Number of Cases	36,275	18,150
Adjusted R-squared	.340	.320

Table 16. Regression Coefficients from an Ordinary Least Squares (OLS) Analysis of
Socioeconomic Status (SES) among Immigrants of Italian Ancestry (1986 Census of
Australia)

Characteristic	Regression Coefficients	
	Men	Women
Years of Overseas Schooling	1.19	1.16
(Quadratic Term*100)	-2.04	-0.43
Years of Australian Schooling	1.84	1.63
(Quadratic Term*100)	2.38	-1.14
Postgraduate	38.13	36.86
Degree	33.28	30.58
Diploma	23.88	24.26
Trade Certificate	2.53	-0.06
Other Certificate	12.34	7.33
Still Studying	4.50	4.35
Adjusted Overseas LFX	-0.12	0.02
(Quadratic Term*100)	0.55	0.09
Adjusted Australian LFX	0.09	0.08
(Quadratic Term*100)	-0.01	1.38
Employer	4.09	0.86
Self-employed	0.76	2.47
Wage & Salary Earner	-5.18	-11.98
Government Employee	-1.90	0.52
Works from Home	14.74	5.19
Married	1.70	-2.06
Foreign Qualification	1.34	0.63
Australian Citizen	1.06	0.59
Speaks Poor English	-2.41	-1.46
Born in Latin America	0.37	-1.03
Born in Egypt	4.52	3.44
Constant	8.71	18.87
Total Number of Cases	89,477	39,685
Adjusted R-squared	.387	.437

Table 17. Regression Coefficients from an Ordinary Least Squares (OLS) Analysis of Socioeconomic Status (SES) among Immigrants of Chinese Ancestry (1986 Census of Australia)

Characteristic	Regression Coefficients	
	Men	Women
Years of Overseas Schooling	0.46	0.83
(Quadratic Term*100)	-1.79	-2.62
Years of Australian Schooling	0.48	0.95
(Quadratic Term*100)	-1.89	-2.64
Postgraduate	38.54	31.30
Degree	35.11	27.65
Diploma	23.03	17.48
Trade Certificate	3.38	1.64
Other Certificate	13.79	13.35
Still Studying	-0.74	-1.51
Adjusted Overseas LFX	0.19	0.32
(Quadratic Term*100)	-0.52	-0.70
Adjusted Australian LFX	0.36	0.47
(Quadratic Term*100)	-0.87	-1.93
Employer	10.90	4.05
Self-employed	5.69	2.33
Wage & Salary Earner	2.10	-2.51
Government Employee	5.50	7.54
Works from Home	3.42	1.08
Married	1.47	-0.84
Foreign Qualification	-0.54	-1.19
Australian Citizen	-1.46	-2.27
Speaks Poor English	-4.70	-6.48
Born in China	1.14	-0.40
Born in Hong Kong	4.34	1.57
Born in Malaysia	4.11	4.20
Born in Vietnam	-4.25	-4.13
Constant	13.82	16.53
Total Number of Cases	33,505	25,575
Adjusted R-squared	.579	.483

for men and 8.52 for women. In both cases, just over one-third of the gap stems simply from poorer endowments. Among women, another third results from the interaction between endowments and returns, a figure somewhat higher than among men. Around three points of the difference remains unexplained in any way by endowments. In short, at least one-third of the observed gap in average status between Italians and Anglo-Celts reflects unequal treatment.

Finally, we consider status attainment among the Chinese. Men enjoy a status advantage over women, with a mean 5.4 SES points higher. But returns to schooling and experience are higher for women. This advantage does not extend to post-school qualifications, or to any other variables in Table 17 except government employment. Relative to unpaid helpers, Chinese women working for wages and salary occupy jobs with lower status. The opposite is true of men. According to Table 6 above, Chinese women do not in general have superior endowments of human capital. So we would expect men to have somewhat higher average status. The decomposition technique confirms the fact that differences in endowments make a major direct contribution (51%) to the 'gender gap' in average status. Little (9%) is due to the interaction between differences in endowments and returns. The remaining 2.2 SES points reflect differential treatment.

Compared with the members of other ancestry groups, however, Chinese immigrants have high endowments of human capital, apart from Australian labour force experience and English-language competence. We might therefore expect them to have relatively high SES. In fact, Chinese women have marginally lower average SES than Anglo-Celtic or Dutch women, while men do better but only by a small amount. Chinese women have an average status 2.3 points below that for Anglo-Celtic women. Yet if the labour market treated their endowments the same, they would have an expected

SES almost 7 points higher. Chinese men suffer even more, with a hypothetical deficit of almost 9 SES points. Social and historical forces channel the Chinese into avenues of work with lower status than those entered by members of the dominant ancestry group. As Figures 8 and 9 show, the status of jobs held by Chinese immigrants in Australia bears a weak relationship to differences in their formal schooling, a result partly due to their high degree of occupational specialisation, especially in the food preparation industry. As Light has argued in the American context, the continued concentration of the Chinese in the catering industry is a monument to the historical power of racial discrimination (Light, 1972: 8). Australia shares a similar legacy (Kitay and Lever-Tracy, 1990: 11). A parallel example of the social inertia of historical patterns of discrimination can be seen from the fact that until recently the rules of Australia's largest trade union, the Australian Workers' Union, denied membership to Chinese immigrants, through Clause 6 of its Constitution. The exclusionary sections of this clause were not removed until 1974. However, according to union officials, no person who actually applied for membership was ever excluded by this clause, which was directed at potential employers of cheap labour rather than at workers themselves (The Australian Worker, September 30, 1974; see also Choi, 1975: 86-7; Ford, 1970: 105-6).

Table 18 brings together in summary form some of the main implications of differentials in process of status attainment. It shows how members of each ancestry group fare relative to a fixed standard. Third-generation Anglo-Celts are also included for comparison. Other standards could of course have been used, and readers can easily make other comparisons by combining coefficients reported in the tables. We focus on unmarried persons who migrated after completing their education, schooling as well as post-school training. We further assume is that they have five years of local work experience.

From the first column of Table 18, we can see that Anglo-Celtic men, whether immigrant or Australian-born, can expect quite low status jobs if they leave school early. The same is true of Italians, men and women alike. Other immigrant women do better but not as well as members of the third-generation majority. The rows for the first three columns simply repeat the results graphed in Figures 8 and 9. Relative to members of the same ancestry groups, differences in years of secondary schooling matter most for Anglo-Celts and least for the Chinese and Italians. An Anglo-Celtic man who completed twelve rather than eight years of schooling has a predicted status thirteen SES points higher if he is a third-generation Australian, and fifteen points higher if he is an immigrant. Among the Dutch, this relative advantage shrinks to just seven points; among the Italians, it is only four; and among the Chinese there is virtually no advantage at all (just one point of SES).

These estimates simply confirm earlier suggestions. The Australian labour market treats differences in schooling among members of the dominant ancestry seriously, rewarding those with many, and penalising those with few, years of secondary schooling. The gradient in returns to schooling is flatter among the members of minority groups, and, to a lesser degree, among women as well. Australian employers are probably less able to evaluate the overseas schooling of persons from non-English-speaking countries, and may practice a form of statistical discrimination by treating members of a given ancestry group the same, regardless of differences in years of schooling (Strober, 1990: 216-7). But occupational segregation and self-employment play a role as well. The greater the extent of self-employment, and the greater the degree of occupational segregation, the flatter are the returns to years of schooling. However, a flatter rate of return does not necessarily mean a lower status job. Immigrant Italian men with eight years of schooling have exactly the same predicted SES as third-generation men with equivalent human capital, and they do marginally better than

immigrant Anglo-Celts. Of course, relatively more Italians have low levels of schooling. Only one in eight immigrant Anglo-Celtic men completed eight or fewer years of schooling. Among Italians, the figure is closer to half (48%).

Men with post-school qualifications from all four ancestries fare much the same in the Australian labour market. Men with a trade qualification have a predicted status ranging between 22 and 24 points, a difference which is equivalent in most groups to the difference between being married or not. The gap for those with a degree is larger, about four points of SES (a range of 54 to 58 points among immigrant men, or 60 points if the third-generation is included). These differences are not indicative of widespread discrimination.

Table 18. Effects of Schooling and Qualifications on Predicted Socioeconomic Status among Immigrants of Anglo-Celtic, Dutch, Italian and Chinese Ancestry with 5 Years of Australian Labour Force Experience

Ancestry Group	Years of Schooling and Qualification				
	8	10	12	Trade	Degree
Immigrant Men:					
Anglo-Celts	13.8	21.0	28.4	22.6	58.4
Dutch	19.1	22.9	26.2	23.5	56.4
Italians	15.8	17.8	19.7	21.7	54.3
Chinese	19.0	19.6	20.1	22.4	54.7
3rd Generation Anglo-Celts	15.8	22.7	28.6	24.2	60.4
Immigrant Women:					
Anglo-Celts	18.6	23.9	29.3	25.1	55.3
Dutch	19.8	22.6	24.9	22.0	50.2
Italians	15.7	18.0	20.2	18.6	51.4
Chinese	19.5	20.7	21.7	21.2	48.2
3rd Generation Anglo-Celts	22.2	27.4	32.1	29.6	60.6

Note: Effects are evaluated for unmarried persons with no overseas labour force experience. Persons with a trade qualification are assumed to have ten years of schooling, and those with a degree twelve years. For immigrants, the effects of overseas schooling and foreign qualifications are used, with Australian schooling set to zero.

The estimates for women tell a similar story, except that immigrant women with a degree do somewhat worse than immigrant men of the same ancestry, and worse than third-generation Anglo-Celtic

women. This pattern of differences suggests that migration has a more disruptive effect on the careers of women with higher education than it does for men. Immigrant families may place more emphasis on securing the recognition of the overseas qualifications of future male breadwinners, and may tend to settle in areas where the chances of finding appropriate employment for men are better.

In general, however, it seems fair to conclude that processes of status attainment among men and women, and among these four ancestry groups, are notable more for their similarities than their differences. The main exception involves returns to schooling, which distinguish relative outcomes more sharply among Anglo-Celts than other groups.

8. Hourly Earnings

How much a person earns in the labour market is a function of many factors. For example, members of trade unions earn more than non-unionists; workers in large cities earn more than farmers; men earn more than women; those who work for the government earn more than those who do not; and workers with post-school qualifications earn more than those without them. In developing models of the earnings process, sociologists often include some measure of occupational position. Economists usually do not because they want their models to provide estimates of total returns to schooling and qualifications (for an exception to this generalisation, see Chapman and Mulvey, 1986). Allowing occupational status to intervene between inputs of human capital and financial returns yields estimates of direct effects only. The following analyses generally adopt the economists' practice and exclude occupational status as an intervening variable mediating the effects of schooling and qualifications on earnings. Unlike economists, however, we use average earnings, not its natural logarithm, as our dependent variable. [3]

The ratio of women's to men's average hourly earnings in Tables 3 through 6 above varies from 79 per cent among Anglo-Celtic immigrants to 78 per cent among the Dutch, 79 per cent among

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[3] We did, however, carry out parallel analyses of log earnings, but results are not reported here.

Italians, and 83 per cent among the Chinese. This finding that
women earn less than men is hardly new. The devaluation of
women's economic contribution goes back at least to the time of
Moses. In Jewish custom, the votary value to the sanctuary of a
woman aged between twenty and sixty years was only thirty
shekels of silver, compared with fifty shekels for a man the same
age. This sex difference in economic valuation reflected a view that,
even then, a man could earn more than a woman (Levine, 1989:
192-3). It also reflected relative prices in the slave market (Wenham,
1979: 338). This ancient Hebrew relativity of 60 per cent bears a
remarkable resemblance to Australian differential of 54 per cent
established by Justice Higgins in his famous Harvester judgment of
1907 (Jones, 1984: 102-3). It is also not much different from recent
American experience. Strober (1990: 229), for example, quotes an
earnings relativity of 58 per cent for year-round, full-time white
workers in the United States. She also reports that, while black and
Hispanic women do better relative to men of the same race, they do
worse compared with white men.

As already noted, the Australian equal pay decisions of the late
1960s and early 1970s eliminated blatant wage discrimination from
the Australian labour market (Gregory et al., 1989: 231). In 1968-69,
for example, full-time, full-year Australian women workers received
the Mosaic ratio of 60 per cent. Ten years later, equal pay decisions
had lifted this ratio to 77 per cent (Jones, 1984: 111). Although the
relativity is now something over 80 per cent, women's earnings still
lag behind those of men. The relativities in Table 3 through 6 above
are typical of recent years and similar to the 1990 relativity of 83
per cent among workers of all ancestries quoted by Senator Cook to
the Australian Parliament, noted at the beginning of this
monograph. Women fail to enjoy full equality in earnings partly
because they accumulate less labour force experience than men. But
they also encounter a 'glass ceiling' that blocks their promotion in

occupational hierarchies and reduces the returns they get to their schooling and qualifications (Hannan *et al.*, 1990: 704).

The earnings analysis presented here includes full-time workers only, because full-time workers are more likely to be full-year workers (ABS, 1988: Table 3). To include part-time workers would distort estimates of hourly earnings, because many part-timers work for only part of the year. However, the 1986 Australian census routinely assumes weekly earnings can be converted into annual equivalents, and vice-versa. The census form even listed annual with weekly figures. But it sought no information on weeks worked during the year. Restricting the sample to full-time workers (persons working at least 35 hours a week) has the effect of reducing the female sample relative to the male sample, because more women work part-time. As a result, only 56 per cent of Anglo-Celtic women in the status analysis (Table 13) survive into the earnings analysis (Table 19), compared with 85 per cent of the men. However, there is little change in their human capital. Total years of schooling for women increases marginally from 10.0 years to 10.1, as does the proportion with post-school qualifications (from 32.4 to 32.5%). There is, however, a larger difference in accumulated labour force experience (the adjusted averages are 12.6 years in the more inclusive analysis, compared with 15.5 in the earnings analysis). So the female sample retained for the earnings analysis is somewhat older. In other respects, selectivity has little effect on the variables of interest, except of course hourly earnings. This general pattern holds among other ancestry groups as well.

Tables 19 through 22 list the variables used to account for earnings differentials between groups. They include a few variables not used in previous analyses. The Zagorski (1990: 224-232) index of industrial strength is like the ANU3 status scale except that it pertains to firms and industries, not jobs. It is based on scores from a factor analysis of Australian enterprises and has a range from

Table 19. Regression Coefficients from an Ordinary Least Squares (OLS) Analysis Regression of Hourly Earnings among Immigrants of Anglo-Celtic Ancestry, Fulltime Workers Only (1986 Census of Australia)

Characteristic	Men		Women	
	Reg. Coeff.	Std. Err.	Reg. Coeff.	Std. Err.
Years of Overseas Schooling	0.62	0.02	0.44	0.02
(Quadratic Term*100)	1.74	0.18	0.35	0.19
Years of Australian Schooling	0.39	0.03	0.36	0.03
(Quadratic Term*100)	-2.00	0.20	-0.45	0.21
Postgraduate	6.40	0.10	4.44	0.12
Degree	4.99	0.07	3.58	0.08
Diploma	3.54	0.08	2.00	0.09
Trade Certificate	0.38	0.04	-0.17	0.12
Other Certificate	1.75	0.06	0.86	0.05
Still Studying	-0.35	0.08	0.17	0.08
Adjusted Overseas Labour Force				
Experience	0.08	0.01	0.06	0.01
(Quadratic Term*100)	-0.14	0.02	-0.20	0.05
Adjusted Australian Labour Force				
Experience	0.13	0.00	0.13	0.00
(Quadratic Term*100)	-0.27	0.02	-0.67	0.03
Employer	-1.22	0.07	-1.41	0.09
Self-employed	-1.80	0.06	-2.78	0.09
Zagorski Index	0.60	0.02	0.30	0.03
Farm Occupation	-2.56	0.14	-1.46	0.15
Government Employee	0.27	0.04	0.55	0.04
First Year of Australian Labour Force Ex-				
perience	-0.38	0.09	-0.01	0.09
Works from Home	-2.15	0.14	-0.50	0.13
Works from Home for Wages	-0.56	0.25	-2.24	0.20
Married	0.99	0.04	-0.14	0.04
Foreign Qualification	0.51	0.06	0.37	0.07
Australian Citizen	0.08	0.03	0.06	0.04
Constant	2.21	0.24	2.49	0.25
Total Number	69,162		28,454	
Adjusted R-squared	.287		.290	

* These figures relate to a one-in-five sample of immigrant Anglo-Celtic workers in the Australian census.

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Table 20. Regression Coefficients from an Ordinary Least Squares (OLS) Analysis of Hourly Income among Immigrants of Dutch Ancestry, Fulltime Workers Only (1986 Census of Australia)

Characteristic	Regression Coefficients	
	Men	*Women*
Years of Overseas Schooling	0.33	0.26
(Quadratic Term*100)	-0.43	-0.41
Years of Australian Schooling	0.31	0.28
(Quadratic Term*100)	-0.34	0.29
Postgraduate	5.64	4.34
Degree	4.45	3.50
Diploma	3.03	1.72
Trade Certificate	0.31	-0.20
Other Certificate	1.62	0.68
Still Studying	-0.18	0.17
Adjusted Overseas Labour Force		
Experience	0.01	0.03
(Quadratic Term*100)	0.14	-0.23
Adjusted Australian Labour Force		
Experience	0.11	0.11
(Quadratic Term*100)	-0.36	-0.64
Employer	-1.51	-1.62
Self-employed	-2.04	-2.86
Zagorski Index	0.79	0.24
Farm Occupation	-1.58	-0.53
Government Employee	0.47	0.83
First Year of Australian LFX	0.23	-0.30
Works from Home	-1.46	-0.04
Works from Home for Wages	-1.77	-2.31
Married	0.92	-0.18
Foreign Qualification	0.39	0.25
Australian Citizen	0.05	-0.09
Speaks Poor English	-0.44	-0.57
Born in Asia	-0.14	-0.08
Constant	4.10	3.94
Total Number	30,624	8,677
Adjusted R-squared	.232	.276

Table 21. Regression Coefficients from an Ordinary Least Squares (OLS) Analysis of Hourly Income among Australian Men of Italian Ancestry, Fulltime Workers Only (1986 Census of Australia)

| Characteristics	Regression Coefficients	
	Men	Women
Years of Overseas Schooling	0.13	0.16
(Quadratic Term*100)	-0.02	-0.32
Years of Australian Schooling	0.22	0.24
(Quadratic Term*100)	0.55	0.33
Postgraduate	6.72	4.90
Degree	5.15	3.97
Diploma	3.57	2.10
Trade Certificate	0.46	0.05
Other Certificate	1.95	0.86
Still Studying	0.17	0.37
Adjusted Overseas Labour Force		
Experience	-0.01	0.00
(Quadratic Term*100)	0.03	0.10
Adjusted Australian Labour Force		
Experience	0.10	0.10
(Quadratic Term*100)	-0.28	-0.44
Employer	-1.05	-0.47
Self-employed	-1.42	-1.70
Zagorski Index	0.16	0.24
Farm Occupation	-1.27	-0.15
Government Employee	0.16	0.70
First Year of Australian Labour Force		
Experience	-0.29	-0.74
Works from Home	-0.78	0.37
Works from Home for Wages	-1.39	-1.77
Married	0.65	-0.09
Foreign Qualification	0.43	0.35
Australian Citizen	0.08	0.10
Speaks Poor English	-0.44	-0.22
Born in Latin America	0.26	0.37
Born in Egypt	1.00	0.42
Constant	4.79	3.56
Total Number	75,301	22,256
Adjusted R-squared	.172	.206

Table 22. Regression Coefficients from an Ordinary Least Squares (OLS) Analysis of Hourly Income among Immigrants of Chinese Ancestry, Fulltime Workers Only (1986 Census of Australia)

Characteristic	Regression Coefficients	
	Men	Women
Years of Overseas Schooling	0.18	0.19
(Quadratic Term*100)	-0.95	-0.89
Years of Australian Schooling	0.10	0.20
(Quadratic Term*100)	-0.14	0.58
Postgraduate	6.88	5.26
Degree	5.31	4.15
Diploma	3.80	2.51
Trade Certificate	0.72	0.17
Other Certificate	1.92	1.28
Still Studying	-0.23	0.13
Adjusted Overseas LFX	0.08	0.05
(Quadratic Term*100)	-0.24	-0.28
Adjusted Australian LFX	0.19	0.14
(Quadratic Term*100)	-0.56	-0.65
Employer	-0.90	-1.19
Self-employed	-2.53	-2.47
Zagorski Index	0.72	0.41
Farm Occupation	-0.17	-0.07
Government Employee	0.60	0.58
First Year of Australian LFX	0.43	0.15
Works from Home	-0.38	0.07
Works from Home for Wages	-1.91	-1.60
Married	0.56	0.02
Foreign Qualification	0.53	0.12
Australian Citizen	-0.30	-0.42
Speaks Poor English	-1.05	-0.70
Born in China	-0.66	-0.57
Born in Hong Kong	0.17	0.13
Born in Malaysia	0.46	0.37
Born in Vietnam	-0.23	-0.39
Constant	4.83	4.40
Total Number	28,304	17,767
Adjusted R-squared	.418	.397

minus two to plus three. Low scores identify industries in which firms have few employees, cover a single industrial activity in one location, and are owned by families or partners. Farms, corner shops, and personal services like hairdressing are typical examples. At the other extreme are conglomerates in either the public or private sector, whose activities cross state boundaries and involve many employees. Defence, transport and the tobacco industry are typical examples. Consistently with segmented market theories (Norris, 1989: Chapter 5), this factor ranks industries, roughly, from the core to the periphery. We use the Zagorski index only in income analyses, where it should have a positive effect on hourly earnings. In theory, male, majority ancestry workers in the core should earn more than female, minority ancestry workers in the periphery, net of other factors (Norris, 1989: 92-3). In this case, fact accords with theory. Men score higher on this index than women (Italian women, many of whom work in factories, are an exception), and so do Anglo-Celts compared with members of minority ancestry groups.

The earnings analysis also distinguishes farmers because they are often asset-rich but income-poor, despite their long hours of work. Government workers are also identified, because, being more unionised, they earn more than persons in the private sector (Chapman and Mulvey, 1986: 512; Blanchflower *et al.*, 1992). Another distinction involves new entrants to the labour market, who may not have worked a full year. If so, their hourly earnings will be unduly low because they worked fewer than the 52 weeks assumed in calculating their hourly earnings. Finally, self-employed persons working from their place of residence, such as doctors and dentists, are also identified. They do not suffer the same financial disadvantage as those who work from home for wages, like outworkers in the textile industries (Tassie, 1989). So the earnings analysis distinguishes these two groups, but the status analysis does not.

FIGURE 10. EFFECTS OF OVERSEAS SCHOOLING ON THE HOURLY EARNINGS OF IMMIGRANT MEN OF ANGLO-CELTIC, DUTCH, ITALIAN AND CHINESE ANCESTRY(a)
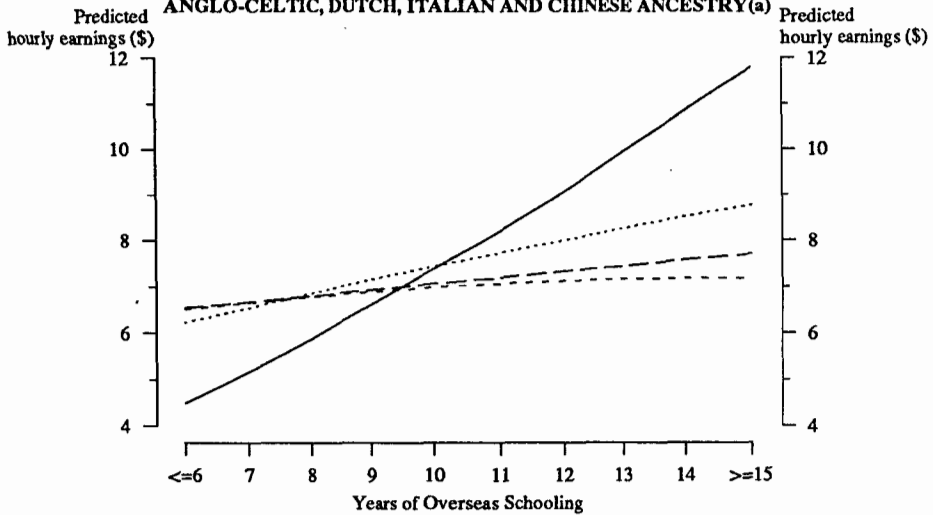
(a) Effects are evaluated for unmarried wage and salary earners with no Australian schooling, no post-school qualification, and 5 years Australian labour force experience.

——————— Anglo-Celts

·········· Dutch

— — — Italians

- - - - - Chinese

FIGURE 11. EFFECTS OF OVERSEAS SCHOOLING ON THE PREDICTED HOURLY EARNINGS OF IMMIGRANT WOMEN OF ANGLO-CELTIC, DUTCH, ITALIAN AND CHINESE ANCESTRY(a)
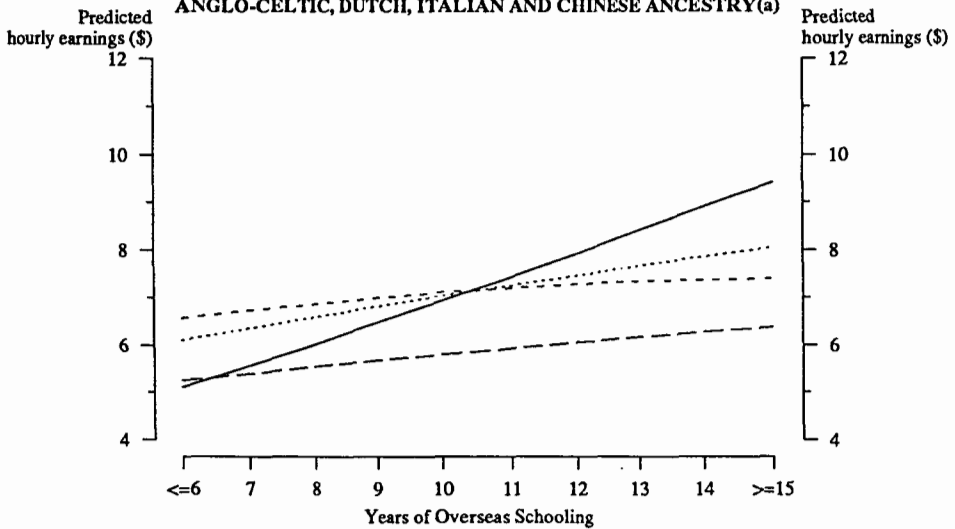
(a) Effects are evaluated for unmarried wage and salary earners with no Australian schooling, no post-school qualification, and 5 years Australian labour force experience.

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We turn now to Tables 19 through 22 and describe first the Anglo-Celtic experience. Women receive the same returns to their Australian labour force experience as men. Pre-migration experience matters less for both men and women. The fact that women's returns are somewhat lower may simply reflect lower participation rates in their country of origin. If so, their pre-migration experience will be over-estimated, and returns will be under-estimated.

As for returns to overseas schooling, men do distinctly better than women, with a return some 40 per cent higher. However, part of this advantage is offset by the larger constant in the female equation, and by the high negative quadratic coefficient for Australian schooling. Because this schooling variable was adjusted by minus ten before squaring, a man with no Australian schooling incurs a loss of $2.00 an hour. For a woman, the comparable loss is only $0.45 an hour. The graphs in Figures 10 and 11 clarify the pattern of relative outcomes. Focusing on a person with ten years of overseas schooling and the other characteristics listed in the note to the figures, we find that an immigrant Anglo-Celtic man has predicted hourly earnings of $7.40. A comparable woman earned an estimated $6.96 an hour, or 94 per cent of male earnings. In fact, those few women who received even less schooling (eight or fewer years) actually did marginally better than men. However, at higher levels of schooling, women did worse. The female/male earnings ratio is only 88 per cent among persons who left school at eighteen, with twelve years of formal schooling. As Figures 10 and 11 show, the returns to women follow a flatter path than those for men. At low levels of schooling the 'gender gap' favours women; at higher levels it benefits men.

Women also get lower returns to their post-school qualifications. These lower returns are consistent with the 'glass ceiling' that restricts them to the lower ranks of specific occupations. However,

relative to other female workers, women currently enrolled in a post-school course fare better than their male peers, but the comparative advantage is not great (52 cents an hour). Women with degrees, who are nearly as numerous, lose almost three times this amount relative to men. The deficit is even greater among women with postgraduate qualifications and diplomas. These shortfalls may reflect differences in kinds of qualifications. For example, among postgraduates women are more likely to be teachers than doctors. But part of the difference results from lower seniority within occupations among women, despite the fact that the model includes only full-time workers whose labour force experience has been adjusted for intermittent participation. We return to this issue below.

Independent workers report lower hourly earnings than wage and salary earners. This differential has two main sources. First, the self-employed work long hours for their income, accepting low hourly returns as a trade-off for their greater autonomy. They can also exchange professional and business services outside the formal market as an alternative to money income. They can further reduce their nominal income by diverting it into deferred capital gains, or by income-splitting (for example, the independent taxi-driver who splits his income with his book-keeper wife). Farmers have especially low cash incomes. Note that farmers get a negative score on the Zagorski index (-0.5), are usually self-employed, and often 'work from home' (Walker, 1987: 23-4). An Anglo-Celtic male farmer with the above characteristics would earn $6.81 an hour less than an otherwise comparable private sector worker. Women who work at home for wages also do badly compared with other wage-earners. However, the fact that self-employed women working from home do even worse (their hourly deficit is the sum of -$2.78 and -$0.50) raises a large question-mark about the extent of income-splitting, as well as about the economic benefits of entrepreneurship (Tait *et al.*, 1989: 193-4; also, see Evans, 1989).

Married men earn more than the unmarried, but the reverse is true of women. Because employers do not explicitly discriminate in wage-rates on the basis of marital status,[4] this difference must reflect unmeasured aspects of labour supply, like attachment to paid work and geographical mobility. For example, married women may prefer intermittent work, or work requiring less travel even if it pays lower wages; and when a married woman does change location, she may do so in order to maximise her husband's job prospects rather than her own. In such circumstances, the wife stands to lose both seniority in the firm and pay. Moreover, unmarried women suffer fewer disruptions to their work careers. So, other things equal, they should earn more than their married peers.

Working for the government pays better than working in the private sector, net of other factors in the model. This partly results from occupational mix: government workers have higher average status. The differential between the two sectors declines when occupational status is included in the equation. But higher pay also reflects union bargaining power. Two in three public sector employees are union members, compared with one in three in the private sector (ABS, 1990b: 129). Most private employers do not bridge this earnings gap with fringe benefits. In fact, more private than public sector employees lack non-wage employment benefits (15 versus 6%; see ABS, 1990b: 113). Similarly, 1986-7 figures show that gross wages and salaries accounted for 87 per cent of total labour costs in public employment, but for 89 per cent in the private sector (ABS, 1990b: 104-5). On the other hand, fringe benefits other than superannuation do cost private employers more.

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4 From time to time, there are media reports about employers sacking pregnant employees. This practice, which is probably more prevalent in the private than in the public sector, contributes to intermittent participation and loss of seniority, and so has an earnings effect. It may also have a 'discouraged worker' effect.

We suggested above that the main cause of the lower returns to schooling and qualifications among immigrant Anglo-Celtic women is the 'glass ceiling' that limits their promotion opportunities. It is tempting to interpret the female advantage in government employment as a faint echo of affirmative action programs, an area where employers in the public sector have taken a lead. Although the census provides no information on levels of seniority within firms, we can make an indirect test of the 'ceiling' hypothesis by expanding the model shown in Table 19 to include the occupational status of each person's job. If women do generally occupy less responsible ranks within detailed job categories, then we would expect to find that the economic returns to SES scores are lower for women than for men, after controlling for other relevant differences.

The data bear out this expectation. Evaluating differences at the average SES in either group, we find that the net effect of job status on hourly earnings is $2.73 an hour for men, but only $2.16 for women. The ratio of these figures is 79 per cent, the same as the overall ratio in earnings between males and females (Table 3 above). The absolute difference is about one-quarter of the 'gender gap' in average earnings.

How much do compositional differences in worker characteristics contribute to the 'gender gap' of $2.23 in hourly earnings? Men and women have similar levels of schooling and qualifications, so they contribute little to the earnings gap. On average, however, women have fewer years of (adjusted) labour force experience. In the sample of full-time workers, this difference is 6.2 years. So perhaps one-third of the observed gap of two dollars can be accounted for by this single difference. On the other hand, more women are wage and salary earners, and they tend to earn more than entrepreneurs. These two effects work against each other. We need to carry out a more extensive analysis.

Taking the complete range of variables in Table 19, we find that only 7 cents of the observed 'gender gap' of $2.23 in average hourly earnings results directly from women's different endowments. A larger amount, 58 cents or 26 per cent of the gap, is the product of differences in both endowments and returns. It would disappear if women had the same endowments as men, or if they had the same returns. The larger part of the difference of $1.58 does not result directly or indirectly from differences in endowments, but from differential treatment (details are in Table 23). In short, women earn less than men, we argue, mainly because they get lower returns to their schooling and qualifications. They receive lower returns to their human capital because they do not rise as high in occupational hierarchies. Women may not suffer socioeconomic status loss compared with men. But within any specific level of occupational status, they have lower organisational rank, so they earn less.

Table 23. Decomposition of Group Differences in Average Hourly Earnings among Immigrants of Anglo-Celtic, Dutch, Italian, and Chinese Ancestry

Groups Compared	Component of Difference Due to:			Total 'Gap'
	Returns	Endowments	Interaction	
Men versus Women:				
Anglo-Celts	1.58	0.07	0.58	2.23
Dutch	1.73	-0.24	0.76	2.25
Italian	1.55	-0.03	0.34	1.86
Chinese	0.96	0.39	0.31	1.66
Anglo-Celts versus:				
Dutch Men	0.63	-0.04	-0.26	0.33
Italian Men	0.63	0.60	0.55	1.78
Chinese Men	2.29	0.48	-2.07	0.70
Dutch Women	0.20	0.19	-0.04	0.35
Italian Women	0.31	0.46	0.64	1.41
Chinese Women	0.56	0.32	-0.75	0.13

Note: For definition of terms, see Jones and Kelley, 1984: 331.

As already indicated, the ceiling or seniority hypothesis can not be tested directly using census data. However, there are three pieces of empirical evidence that are consistent with it. First, the earnings effect of the Zagorski index of industrial strength is weaker for women. Men employed in large firms do better than women, other things equal. Large firms usually have well-defined internal markets and career paths, at least for men. Second, and conversely, the public employment effect is greater for women than it is for men. It is tempting to interpret this difference as evidence that public authorities have been leaders, not laggards, in affirmative action programs (Ronalds, 1987: 86-7; Sawer, 1990).[5] Finally, when we include SES scores as a predictor of earnings, its effect is greater for men than for women. All three differences are consistent with the crowding of women into the lower echelons of specific job categories, where they earn less despite their nominally 'equal' socioeconomic status.

Summing up so far, we can say that very little of the observed 'gender gap' in earnings can be attributed to differences in worker characteristics as such. Most of this earnings gap reflects differential treatment arising mainly from the inferior promotion chances of women. This inferiority could reflect decisions by employers, who fail to provide women with equal training and promotion opportunities. Or it may reflect the choices of women themselves, who may be reluctant to pursue and to accept the responsibilities

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5 Even employers with an explicit commitment to equal employment opportunity may practise (unconscious?) sexism. For example, the *Australian* of 12 December 1990 carried five advertisements for academic jobs at the same Australian university. Two *limited-term* lectureships (one in Modern Greek and the other fractional appointment in Philosophy), and a tutorship in Philosophy, carried the statement: 'Women are particularly invited to apply'. The same invitation was conspicuously absent from the other two jobs: a *tenurable* lectureship in the medical school and a Chair in Economics. All five advertisements were covered by the general advice that equal employment opportunity was University policy.

that seniority implies. We cannot decide the issue from census data alone. Only time, and more direct evidence, will tell.

To avoid possible misunderstanding, we caution the reader against two temptations when interpreting evidence of the kind just presented. The first is the 'blame-the-victim' syndrome. We should avoid the inference that women earn less because they are in some way at fault. Women, and men as well, have been socialised into the ways of a society that for generations paid women less when they chose to work outside the home. There was, and still is, a sex-based division of domestic labour that reinforces, and is in turn reinforced by, occupational segregation in the public arena of paid work. Women's occupational choices are constrained not only by the history of institutionalised discrimination in pay rates but also by long-established public and private understandings of their place in society. Changes in family-based roles have been slow to materialise, as studies of time-use show (Bittman, 1991; Barrett, 1982). Moreover, changes in labour conditions like flextime and the growth in part-time work tend, if anything, to reinforce the traditional sex division of labour. Women may have valid reasons to invest less in on-the-job training and to avoid work responsibilities that conflict with unequal family roles. Indeed, the process that produces such outcomes is so pervasive that it is described in elementary sociological texts. It is the process of anticipatory socialisation. People learn to behave in ways that prepare them for their likely future roles (Robertson, 1981: 120).

The second temptation to avoid is the inference that unequal outcomes must result from deliberate acts of discrimination. It is easy to show (Jones, 1985) that extensive residential and occupational segregation can arise from small differences in tastes and preferences. We can, for example, reproduce the present level of sex segregation in the Australian workforce simply by assuming that women and men have different preferences about working

with data, people, or things. Precisely how much segregation occurs depends on how different tastes happen to be. Sex segregation today does not need deliberate actions by employers or even unions, even if the earlier sex-typing of occupations and division of organisational tasks did.

It remains an open question whether or not eliminating occupational segregation would help equalise earnings. An earlier study based on 1976 census results (Jones, 1983b: 147) suggests that about one-sixth of the 'gender gap' in hourly earnings was due to the net effects of occupational segregation. But its effect was offset by other differences, for example, in SES. Moreover, a more recent study using official survey data for the late 1970s and mid-1980s concludes that equalising the sex composition of broadly defined occupational groups would worsen women's absolute and relative earnings without accompanying changes in pay relativities for women and men in the same occupational group (Rimmer, 1991: 210-11; see also Agrawal, 1988: Table 3). On the other hand, a recent American study concludes that occupational segregation by sex (but not by race) does contribute significantly to the earnings gap (Sorensen, 1989: 57). We need to know more about the impact of occupational segregation on earnings, as well as on the causes of earnings inequalities within specific occupational categories.

How do members of minority ancestry groups fare? The pattern of effects among the Dutch is similar to Anglo-Celts. Returns to overseas schooling and experience are lower but, as the higher constants in the Dutch equations show, their earnings vary around a higher threshold. When we correlate the twenty-five coefficients common to both tables, we find a very high correlation: 0.98 for men and women alike. There is, however, one effect in Table 20 that requires further comment, namely, the effects of overseas qualifications. Persons with overseas qualifications earn marginally more.

This result, which recurs among Anglo-Celts, Italians and Chinese, contradicts initial expectations that the Australian labour market devalues foreign qualifications. Such an effect did emerge from the unemployment analyses (Tables 7 through 10 above), where foreign qualifications increase the chances of unemployment. It also appears in the status analyses, where foreign qualifications tend to reduce the SES of jobs held by immigrants. However, in the latter case the pattern is neither general nor strong (Tables 13 through 16 above). But when it comes to hourly earnings, we find consistently that persons with overseas qualifications earn more than persons who gained a qualification after arrival.

One possible explanation of this apparent advantage is that some immigrants whose overseas qualifications were not recognised in Australia undertook additional training in order to obtain local qualifications. If so, they may have suffered reduced earnings compared with those who experienced no recognition problem. In other words, immigrants who did not need to 'convert' their overseas qualifications are a select and 'privileged' subgroup. In this context, it is interesting to note that only 9 per cent of Italians with a post-school qualification obtained it before arriving in Australia. Among Anglo-Celts, the figure is 41 per cent. The other two ancestry groups are intermediate (15% for the Dutch, and 36% for the Chinese, the most recent group in terms of average period of residence). However, while the 'conversion' argument may be plausible for members of minority ancestries, it will not do for Anglo-Celtic immigrants: they experience few if any problems in having their qualifications recognised. It is also inconsistent with the pattern of effects for unemployment and status, although the populations involved are progressively more select. A series of supplementary analyses suggests that persons who obtained their highest qualification before migration tend to be more recent arrivals, who may in turn experience less discrimination than those who arrived years ago. But it is not possible to refine these

speculations without knowing the educational histories of the persons involved.

The fact that persons with foreign qualifications tend to be more recent arrivals suggests another possibility, although it also cannot be tested with the data at hand. It is that recent migrants with post-school qualifications obtained overseas are highly motivated and more likely to work in multiple jobs or seek overtime work in their main job. In the census, job status and hours worked relate to main job only. But income refers to total income from all sources, not just from the main job. If, therefore, recent migrants with overseas qualifications are more likely than longer-established migrants to work in more than one job, or even to work overtime in their main job, then their hourly earnings will appear relatively high. A similar process may also be implicated in another unexpected result (Table 24 below), namely, that hourly earnings among immigrants are not generally lower, and indeed are sometimes higher, than among third-generation Anglo-Celts. Migrants may indeed work harder.

We turn now to an assessment of sex differences in earnings among other ancestry groups. The Dutch data show a earnings gap much the same as that found among Anglo-Celts, with Dutch women earning around 78 per cent the male average. Differences in endowments do not account for any of this gap. In fact, it would widen if men received female returns to their marginally poorer characteristics. Most of the gap (77%) reflects differential treatment. Dutch women get lower returns to their schooling and qualifications, and when we include the SES of their job as a mediating factor between their human capital and their hourly earnings, we find almost exactly the same result as we did for Anglo-Celts. Women get only around 77 per cent of the male returns to SES, which, when evaluated at each group's average status, yields $2.70 an hour to men but only $1.85 for women. So

Dutch women, like their Anglo-Celtic peers, face 'ceiling' effects on their occupational earnings.

Dutch men earn on average 33 cents an hour less than Anglo-Celts, or 97 per cent of the majority rate. None of this gap can be explained by differences in endowments. In fact, Anglo-Celts have marginally inferior worker characteristics which, if treated like those of Dutch men, would widen the gap. Put another way, if the Dutch received the same treatment in the market as Anglo-Celts, they would be 3 percentage points better off, rather than 3 percentage points worse off. Compared with the 'gender gap' in both groups, a difference of 3 per cent either way is small and not suggestive of significant discrimination. As for Dutch women, they earn four per cent less than Anglo-Celtic women, about half of which is due to differences in endowments. Again, they do not appear to suffer serious disadvantage as a result of their different ancestry, at least relative to Anglo-Celtic women.

Italian women also earn only about 79 per cent of the average earned by immigrant men of the same ancestry (Table 5 above). Most of the gap in their earnings (about four-fifths) is due to differential treatment, not to differences in endowments of human capital. But an inspection of the coefficients in Table 21 does not help much in identifying causes. Italian women get marginally higher returns to their schooling, and almost identical returns to their experience. They even do better on the Zagorski index of industrial strength, a measure that favours men in other groups. But in general differences in specific returns are either small, or, if large, relate to small proportions in each group. So they contribute little to the overall gap in average earnings, which is about the same as the difference in intercepts.

In sum, Italian men simply earn more than Italian women, net of any differences in endowments or in specific returns. In this case,

we cannot invoke the 'glass ceiling' effect, either. Italian women get almost identical earnings returns for their job status, with a net return of $1.15 an hour at their group mean, versus $1.28 for Italian men. Perhaps the high degree of occupational concentration observed among Italian women (Table 12 above) depresses their earnings. But if it does, it has little to do with the SES of their jobs as such. Nonetheless, it is worth noting that, of the four groups considered, Italians receive the lowest returns to their SES, net of other variables in the model of Table 21. This disadvantage may help explain differences between ancestry groups, but not between Italian women and Italian men.

Compared with Anglo-Celts, Italian men do poorly, earning only 83 per cent of their average. Roughly equal parts of the gap are due to returns, endowments, and the interaction between them. If the market treated Anglo-Celtic immigrants like Italian men, their average hourly earnings would drop by 11 per cent to $9.28. Their residual advantage of $0.60 results from their superior endowments of human capital. So there is more evidence of differential treatment ('discrimination') among Italians than is the case among the Dutch. However, this conclusion needs to qualified to the extent that Italian men with little formal schooling do not suffer financially compared with Anglo-Celts (see Figure 10 and Table 24 below). The low returns Italians get for their overseas schooling may reflect its quality, as Evans and Kelley (1986: 199) argue; it may reflect 'statistical discrimination' by employers who treat workers from the same ancestry much the same regardless of their schooling; or it may reflect the effects of chain migration and segregation that channel workers from the same ancestry into occupational niches where their schooling is less relevant to outcomes. The data are consistent with all or any of these three hypotheses.

Chinese women, like women from other ancestries, also earn less than their male counterparts, with an earnings ratio of 82 per cent.

Some of this gap of $1.66 can be attributed to differences in endowments (39 cents, or 23% of the gap), and to the interaction between endowments and returns (31 cents, or 19%). Most ($0.96) reflects differential treatment. Lower seniority in firms seems to play some part in generating this disadvantage. At the mean SES for each sex, Chinese women get a return of only $2.14 for job status, compared with $3.15 for men.[6]

Compared with Anglo-Celtic immigrants, Chinese men suffer a financial disadvantage that is not apparent from the descriptive data in Tables 3 and 6 above. Although their average hourly earnings are only seven percentage points below those for Anglo-Celts, they would in fact earn 15 per cent more if the market

Table 24. Predicted Hourly Earnings among Immigrants of Anglo-Celtic, Dutch, Italian and Chinese Ancestry with 5 Years of Australian Labour Force Experience

| Ancestry Group | Years of Schooling and Qualification | | | | |
	8	10	12	Trade	Degree
Immigrant Men:					
Anglo-Celts	5.87	7.40	9.05	8.29	14.56
Dutch	6.86	7.45	8.01	8.15	12.85
Italians	6.82	7.08	7.33	7.97	12.91
Chinese	6.79	7.00	7.13	8.25	12.97
3rd. Gen.					
Anglo-Celts	5.28	6.61	7.64	7.21	12.85
Immigrant Women:					
Anglo-Celts	6.02	6.96	7.92	7.16	11.87
Dutch	6.60	7.06	7.48	7.11	11.23
Italians	5.55	5.82	6.06	6.22	10.38
Chinese	6.89	7.13	7.29	7.42	11.56
3rd Gen.					
Anglo-Celts	5.15	6.13	7.11	6.42	11.17

Note: Effects are evaluated for unmarried persons with no overseas labour force experience. Persons with a trade qualification are assumed to have ten years of schooling, and those with a degree twelve years. For immigrants, the effects of overseas schooling and foreign qualifications are used, with Australian schooling set to zero.

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6 Among the Chinese, there is a fairly sizable negative effect for Australian citizenship. In other groups, the effect is positive, as expected, because citizens have accesss to permanent employment with governmental employers. 'Political' refugees, however, can take out citizenship earlier than 'economic' migrants. We interpret this negative effect as evidence of the high proportion of political refugees among recent Chinese immigrants, because recent arrivals tend to earn less.

treated their human capital equally. But, like the Italians, the Chinese get low returns to their overseas schooling. Indeed, they get the lowest returns of any of the four groups considered. We have already rehearsed reasons for this disadvantage, including the diversity of their pre-migration experience and compensatory education after arrival in Australia. Occupational segregation into ethnic enclaves also plays a part. But we need to remember that among both the Chinese and Italians low returns to schooling means that differences in years of schooling do differentiate relative earnings within each group very sharply.

On the other hand, the relatively large intercepts in their equations ensure that their actual earnings do not fall much below those of Anglo-Celts. As for Chinese women, they earn almost exactly the same, on average, as Anglo-Celtic women. But if the market treated them the same, they would earn about 6 per cent more.

In these comparative analyses, inequalities of sex outweigh inequalities of ancestry. A glance down the final column of figures in Table 23 shows that the 'gender gap' within ancestries is larger than the ancestry gap for men and women separately. Only among Italians do ancestry gaps approach those in the first panel, and in both cases differences in endowments, and their interaction with returns, explain most of the inequality between groups. This general conclusion is reinforced by the results in Table 24, which compares predicted outcomes for specific groups of workers.

At low levels of schooling, minority group members do better than Anglo-Celts (cf. Figures 10 and 11 above). All immigrant groups do better than members of the third-generation — even Italian women who have the lowest predicted earnings of any immigrant ancestry. However, we need to remember that few Anglo-Celts, immigrant or native-born, left school with eight or fewer years of schooling, compared with the Italians or even the Chinese (cf. Figures 2 and 3

above). Reading across each row, we see that the relative advantage of a man with 12 years of schooling over a man with 8 years is greatest among Anglo-Celts. Among immigrant men, the estimated advantage is 54 per cent for Anglo-Celts; 17 per cent higher for the Dutch; but only 7 and 5 per cent for the Italians and Chinese. The comparable ratios for immigrant women are either lower or much the same, because their returns to education are also lower or much the same (32, 13, 9 and 6% respectively). Immigrant men without a post-school qualification do not generally do worse than third-generation Anglo-Celts, especially if they left school early. The latter do better than Italian and Chinese immigrants only if they complete secondary school. Even then they lag behind immigrant Anglo-Celts by some margin. The same is generally true for women as well.

Among persons with post-school qualifications, immigrant Anglo-Celts do best, and third-generation Anglo-Celts do worse. The only exception to this generalisation are Italian women, who have the lowest earnings in all but one of the several columns of Table 24. In their case, they suffer the dual disadvantage of low levels of post-school qualifications and occupational crowding into jobs with low earnings and little prospect of promotion. Occupational crowding also depresses the earnings of Chinese women, but more of them have qualifications. Referring back to the graphs in Figures 10 and 11, we can see that the earnings profiles of all three minority ancestry groups are flat compared with Anglo-Celts. Italian women have the flattest earnings profile of any group. Among men, the Chinese and Italians are nearly identical. We do not believe that the mechanism that brings about these unequal outcomes is direct discrimination but an indirect process that channels workers from minority group backgrounds into segments of the labour market where formal schooling plays little part in determining relative outcomes.

9. Conclusion

In describing and analysing prevailing sex and ancestry differences in earnings and other labour market outcomes, we did not expect to find evidence of blatant discrimination. The inequalities among groups that exist stem rather from indirect discrimination, ranging from employer preferences in hiring, training, and promoting staff, to the social forces that induce women and men to make different choices about schooling, post-school training, and occupational careers. Some racial and ethnic inequalities reflect the historical pattern of discrimination that fostered the development of occupational niches and the crowding of different groups of workers into segmented labour markets. Viewed historically, indirect discrimination can persist without active discriminators. But to the extent that current choices depend on practices long since past, they are increasingly based on a false reality, and a false perception of current possibilities.

Our findings are broadly consistent with expectations derived from human capital and status attainment perspectives that predict more favourable outcomes for persons with greater experience, schooling, and qualifications. However, some findings, especially those on sex differences, are also consistent with institutional restraints, reflected in high degrees of occupational crowding, and with 'statistical discrimination', reflected in the low returns to overseas schooling received by Italians and Chinese immigrants, and to a lesser degree the Dutch. These lower returns may reflect discrimination or rational judgments by employers that skills acquired in foreign

schools are not worth much to them. Whatever the reason, differences in schooling do not explain as much of the variation in outcomes among immigrants from minority ancestries as they do among Anglo-Celts.

In our analysis of unemployment, we found, as expected, that schooling and qualifications reduce the individual risk. Foreign qualifications provide weaker protection than qualifications obtained after arrival. Overseas labour force experience also helps reduce unemployment, but not as much as local experience. Married persons have a lower risk of unemployment, as do those who take out Australian citizenship. Poor English speakers and refugees are more likely to be unemployed. These results are consistent with earlier studies.

The Chinese, many of whom are recent arrivals, have higher rates of aggregate unemployment. But when we compare persons of different ancestry with similar endowments of human capital, we find their predicted rate of unemployment is not materially worse than it is among members of other groups. Of course, the comparison we made assumes that they are not refugees from Vietnam or other countries in southeast Asia, and that they speak reasonable English on arrival. Many do not. Women, especially those from minority ancestries, have higher initial rates of unemployment than men. But the decline over time is steeper, especially among Chinese women. Our detailed analysis identifies some ancestry differences (for example, weaker effects of overseas schooling in some groups) but little overt discrimination against immigrants from non-English-speaking backgrounds. In fact, when we compare like with like, Anglo-Celtic immigrant men experience higher rates of unemployment during the first fifteen years of settlement, with rates comparable to those among third-generation Anglo-Celts. Both native-born and immigrant Anglo-Celts seem more tolerant of unemployment as an option to settling for an

inferior job than do the members of other immigrant groups. Migrants from non-English-speaking backgrounds seem readier to accept jobs rejected by members of the majority ancestry, rather than remain unemployed.

By comparing like with like, we provide an answer to the question of how far the market treats equals equally. Even if the market is fair in this sense, different groups of immigrants may still have very different rates of aggregate unemployment simply because their members differ significantly in terms of their relevant endowments. Some groups may, for example, consist predominantly of recent arrivals adjusting to a depressed labour market; they may be less knowledgeable about local conditions than older settlers; they may not speak English well; and if they belong to a new group like the Sino-Vietnamese, they may have few compatriots on whom they can rely for help. Such groups will display a pattern of group disadvantage that is nonetheless consistent with relatively equal treatment. It is simply the case that all new entrants to the labour market — school-leavers, married women re-entering the labour market, and immigrants — experience difficulty in getting a start. Refugees experience the greatest difficulty because they did not even choose to be emigrants. They are ill-prepared for resettlement in a country where they often do not even understand the language.

As for occupational attainment, job segregation and concentration are widespread, especially among women, regardless of ancestry. Around half work in the top ten jobs, which overlap little with men's most frequent lines of work. The jobs held by minority women are less like those of men from the same ancestry than jobs held by women from the dominant Anglo-Celtic ancestry. In this sense, sex differences are stronger than ancestry differences. In terms of the general socioeconomic status of jobs, however, we found little sex difference in average outcomes apart from lower returns to schooling among members of minority ancestry groups.

Australian employers take less notice of differences in schooling obtained in unfamiliar educational systems. Overseas schooling affects status outcomes less among Dutch, Italian and Chinese immigrants than among Anglo-Celts. Self-employment also weakens its impact, because minority group members can improve their status by starting their own businesses. The Dutch, Italians, and Chinese all have higher proportions in self-employment than Anglo-Celts. Self-employment is a route to higher status that does not require formal educational credentials.

Moreover, the experience or perhaps even the threat of prejudice, chain migration, and residential concentration foster occupational segregation by channeling immigrant workers into specialised niches in the economy. In such ethnic enclaves, differences in formal schooling are less important than help from neighbours and compatriots in finding work. But one important caveat is that ethnic enclaves protect rather than disadvantage minority group members with low levels of schooling. It is their better-educated compatriots that suffer. For example, an immigrant Italian man who left school at fourteen has a predicted status equal to that predicted for his third-generation Anglo-Celtic peer and marginally better than an Anglo-Celtic immigrant. But his compatriot with four more years of overseas schooling suffers significant status loss (Table 18 above). The same is true of Italian women, and of Chinese immigrants, women and men alike.

On the other hand, men with post-school qualifications from these four ancestries fare about as well in the Australian labour market. Men with a trade qualification have a predicted status between 22 and 24 points, a difference equivalent in most groups to the difference between being married or not. The gap for those with a degree is larger, about four points of SES (a range of 54 to 58 points among immigrant men, or 60 points if the third-generation is included). These differences do not suggest much discrimination,

although qualified immigrant women from minority ancestries do fare marginally worse. Even so, it seems fair to conclude that processes of status attainment among men and women, and among these different ancestry groups, are notable more for their similarities than for their differences. The main exception involves returns to overseas schooling, which affects relative outcomes more sharply among Anglo-Celts than other ancestries.

There is, however, a sense in which status equality is vacuous, because it does not detect differences in seniority that affect occupational earnings. Women enjoy equal status and equal earnings with men only if they achieve comparable levels of seniority and authority in the 'same' jobs. Even a detailed coding scheme like ASCO provides no direct information on seniority within firms. So there is limit to what census data can tell us about the proximate causes of earnings inequalities. Further understanding of these processes requires data on hiring and promotion practices in specific industries and firms.

Women earn less than men, we argue, mainly because they get lower returns to their schooling and qualifications. They receive lower returns to their human capital because they do not rise as high in occupational hierarchies. Women may not suffer socioeconomic status loss compared with men. But within any specific level of occupational status, they have lower organisational rank. So they earn less. Little of the observed gender gap in earnings can be attributed to differences in worker characteristics as such. Mostly, it reflects differential treatment arising from inferior promotion chances among women. This disadvantage may reflect decisions by employers, who fail to provide women with equal training and promotion opportunities. Or it may reflect the choices of women themselves, who may be reluctant to pursue and to accept the responsibilities that seniority implies. We cannot decide

the issue from census data alone. Only time, and more direct evidence, will tell.

As for ancestry differences in earnings, Italian, Chinese, and to a lesser degree Dutch immigrants get low returns to their overseas schooling. Among members of the former groups, weaker competence in English also contributes to their segregation in ethnic enclaves where economic success is not so closely related to formal education. Despite low returns to schooling, relatively high thresholds in their earnings' regime ensure that their actual earnings do not fall much below those of Anglo-Celts. The culprit in these unequal outcomes is not so much direct discrimination as more indirect forces that channel workers from minority group backgrounds into segments of the labour market where schooling has less effect on outcomes. Such processes, together with weaker competence in English, are major causes of higher unemployment, lower status, and reduced earnings among immigrants from minority ancestries, but have little influence on labour market outcomes among their second- and third-generation counterparts. Their experience, however, and that of other immigrant groups not discussed here, will be the subject of other reports to be published by the author in other forums.

Glossary of technical terms

Adjusted Labour Market Experience.

   When comparing labour market outcomes among the members of different groups, we usually want to control for time spent in the labour market either working or looking for work. This control variable, labour market experience, is related but not equivalent to chronological age, because people complete their schooling and enter the labour market at different ages. For men, labour market experience is customarily estimated as current age minus age at completing full-time education. For women, the same calculation is misleading because many women interrupt their work careers to raise families. The present study therefore makes a series of adjustments to the census data in order to compute a measure of adjusted labour force experience. The adjustments were carried out for men as well as for women. The first step in the adjustment is to calculate years of post-school education. Educational histories from the Social Mobility in Australia Project (Broom *et al.*, 1980) show that a person with a postgraduate qualification had spent an average 5.1 years in further full-time study. For persons with a degree, the figure was 3.8 years: for those with a diploma 2.0 years: and for those with a trade or other certificate 1.4 years. These averages were used to compute an estimate of age at completing full-time education for persons with post-school qualifications, before calculating the conventional measure of labour force experience. I then used data from the National

Social Science Survey (Kelley and Bean, 1988) on part-time and intermittent work to estimate what proportion of their working lives men and women of different ages had spent at work. These estimates were then used to adjust the conventional measure. Fuller details of the adjustment are given in Jones (1992).

Ancestry Groups.

The 1986 Census is the first Australian census to provide information on the ancestry of the population. The present study combines information on ancestry, birthplace and birthplace of parents to identify sub-groups with common ethnic origins. Persons who said that they were of Australian, British, Breton, Celtic, Cornish, Manx, English, Irish, Scottish, Welsh or other British (including Anglo-Saxon) ancestry were coded as being of Anglo-Celtic ancestry. However, persons of mixed ancestry who reported an ancestry not in the above list were coded to that other ancestry. That is to say, those who said they were of mixed British and Italian ancestry were coded as Italian, regardless of which was reported first on the census form. Birthplace data were used to define three ancestry generations. The first generation consists of overseas-born persons with a given ancestry, as defined above. The second generation, not discussed in detail in this report, consists of Australian-born persons reporting the same ancestry but having an overseas-born father. The third generation consists of Australian-born persons reporting the same ancestry but with an Australian-born father. Persons of non-English-speaking background who reported mixed minority ancestries were coded to more than one group. For example, Greek-Macedonians appear in both the Greek and Macedonian ancestry groups. Note that the use of ancestry data to define groups means that immigrants of the same ancestry may come from different overseas countries. Thus,

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not all immigrant Italians were born in Italy, nor were all Greek immigrants born in Greece, and so on. Some came from other countries in the Mediterranean basin or even Latin America. Similarly, some Anglo-Celtic and some Dutch settlers came from former colonial countries in Asia, Africa and the Pacific.

ANU 3 Status Scale.

In modern industrial societies, occupations have a central role in articulating the distribution of scarce resources. Occupational earnings determine the level of living of most of the population most of the time. In studying the process of occupational attainment and the intergenerational transmission of inequality, sociologists have developed synthetic status scales that reflect aggregate differences in advantage and disadvantage associated with the occupational order. The ANU 3 Status Scale is the most recent such Australian scale developed for use with the Australian Standard Classification of Occupations (ASCO). It links public perceptions of the relative social standing of different jobs with the social characteristics of the workers in them. The overall relationship between perceived social standing and the social, economic and demographic characteristics of workers for a sub-set of all jobs in the Australian economy was used to estimate status scores for the full range of jobs reported in the 1986 Census and coded into Ascot. More complete details of the scale and its construction are given in Jones (1989), which also provides references to other scales, including earlier versions of the ANU scale. Because ANU 3 scores directly reflect the objective social and economic characteristics of workers in specific job categories, we refer to the scale as a scale of socioeconomic status (see below).

Logistic Regression.

The general logic of this technique of analysis is similar to that of ordinary least squares regression (see below) except that the statistical theory on which it is based is that appropriate to the analysis of binary (qualitative or yes/no) rather than continuous (quantitative or more/less) outcomes. In a logistic regression the predicted outcome is not a numerical value but rather the ratio of two probabilities (the probability of 'yes' relative to the probability of 'no') expressed in the scale of natural logarithms. Coefficients with positive signs increase this ratio; those with negative signs decrease it. In the SAS (1985) suite of programs, it is possible to implement this procedure either through the CATMOD or through the LOGIST procedure (described in one of the supplemental manuals). I used the latter procedure, although early trials with CATMOD yielded equivalent results (and took the same time to compute).

Ordinary Least Squares Regression.

Multiple linear regression, or ordinary least squares (OLS) regression, is a versatile and widely-used data analysis procedure for both summarising and understanding the relationships among empirical data. It involves fitting a statistical model in which a response variable (like income) is estimated as a function of several predictors or regressors (like schooling and experience). To arrive at numerical estimates of effects, the method minimises the sum of squares of differences between the actual response value for a particular individual and the value predicted by the estimating equation (the least-squares criterion). The parameter estimates (regression coefficients) yielded by the model are measures of how much change, on average, a one-unit change in any given regressor makes to the response variable. Technical details of the technique are available in

most handbooks on statistical techniques of analysis, including the manuals for the SAS (1985) system used to compute all regression estimates in this study.

Socioeconomic Status.

The socioeconomic status (SES) of a person is a composite score based on the social and economic characteristics in particular jobs, in this case the ANU 3 Status scale described above. A high score signifies a job that requires specialised training and offers high pay. A low score signifies a job that almost anyone can enter and pays poorly.

Zagorski Index of Sectoral Strength.

The Zagorski Index is a composite measure like the ANU 3 Status Scale (see above) except that it deals with industries, not occupations, and with firms, not individual workers. The logic behind the Zagorski index derives not from status attainment theory but from economic segmentation theory. The latter attempts to answer such questions as why some industries pay better than others, independently of the human capital of the workers in them. Operationally, the index is derived from the empirical relationships among six organisational characteristics of all non-agricultural enterprises in Australia, using data collected by the Australian Bureau of Statistics for its integrated register of industrial enterprises (the IRIS database). Using factor analysis, Zagorski computed a single factor of sectoral strength from (1) the number of workers in the enterprise and five dummy variables distinguishing (2) enterprises active in more than industry, (3) enterprises operating in more than one Australian state, (4) government enterprises, (5) registered companies and other corporate organizations, and (6) enterprises operated by individuals, partners and families. The first three variables relate to the scale of operation, and

the last three to the form of ownership and organisational vulnerability. High scores on this variable identify large public and private enterprises operating in more than one industry and more than one State. At the other extreme are private partnerships and very small, often solo, enterprises. This index ranges in value from a high of 3.17 (defence) to a low of minus 1.77 (general retail stores). We assigned agricultural enterprises a score of minus 0.5, a value similar to that for many small retail and service enterprises. A description of the scale, including the underlying theory, is available in Zagorski (1990).

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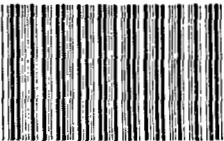
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